Methods Used in Prediction of Individual Criminal Behavior

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Annotation: The article analyzes the concept and significance of extrapolation methods, the method of expert assessments, modeling, mathematical methods, and the role of computer technology, deductive and inductive approaches in predicting individual criminal behavior.

Key words: crime prevention, prediction of individual criminal behavior, extrapolation method, expert assessment method, modeling, mathematical methods, computer technologies, deductive and inductive approaches.

Today, all over the world, special attention is paid to the fight against crime, that is, the prevention and prevention of crime in general, in particular, conducting scientific research to study and identify the causes and conditions for the commission of crimes, to improve the mechanism for combating them.

The forecast contributes to the solution of many problems in planning the fight against crime. Based on this, it can be noted that it is necessary to predict individual criminal behavior, that is, to determine in advance the causes and measures to prevent individual criminal behavior.

Individual forecasting is a far from solved problem both in science and in practice. Especially many errors in solving this complex issue are made at the present time. Judicial practice is overflowing, for example, with cases of arrest of suspects and their release from custody on formal grounds (according to the gravity of the committed act, bail, and so on). The presence of formal grounds exempt's investigators, prosecutors, judges from responsibility, but does not solve the problem in essence.

The solution to the problem lies in a clearer and more direct standard regulation of individual forecasting through an in-depth study of the personality of the perpetrator, the motivation of his behavior and the relatively accessible methods of individual forecasting developed on this basis. These include the same methods: extrapolation, expert judgment and modeling. But, coinciding in names with the methods of predicting crime, they have a different content.

Extrapolation in individual forecasting consists in observing the past and present, and its content is probabilistic data on the future behavior of a person, based, on the one hand, on extrapolated knowledge, and on the other hand, on knowledge of factors that may appear in the future and affect human misdeeds. In this case, the forward-looking information does not have to be strict quantitative estimates.

The extrapolation method in the form in which it is used to predict crime is suitable for predicting individual criminal behavior only at the level of a deductive approach when selecting the most criminogenic (marginal) groups of citizens. At the level of the inductive approach, its application is specific. It is nothing more than the extension of the asocial inclinations previously shown by the subject to possible future behavior. Such extrapolation is based on the well-known position:

"A person is nothing but a series of his actions" (G. Hegel). The continuation of this series for the future is forecasting by a kind of extrapolation.

Extrapolation prediction is based on the similarity of behavioral responses under similar conditions. Of course, a person's personality can change, and reactions will change accordingly. But this process is usually long-term, so the error in short-term forecasting will be small. Long-term prediction of individual criminal behavior is impractical due to low accuracy. This method is widely used by practitioners of law enforcement agencies and courts, although they do not call it as such.

The next method of predicting individual criminal behavior is the method of expert assessments. This method is also called the heuristic method of group (expert) assessments. The method of expert estimates complements extrapolation. Unlike crime forecasting, it is a specific form of predictive survey of officials and other persons (parents, teachers, educators, managers, bosses, representatives of public organizations, employees of various departments of internal affairs bodies, prosecutors, courts, representatives of human rights organizations, and so on), who are obliged (or could) study and actually know the business, psychological and moral qualities of the cognizable categories of citizens. The judgments of these individuals (we will conditionally call them "a group of experts") can have an important diagnostic and prognostic value. Criminological models of personality and experts' assumptions about the promising directions of their behavior are based both on professional experience, the results of observations of persons who commit crimes, and intuition, as well as the practice of bringing persons to legal responsibility.

The method of expert assessments, as described above, can be used to predict the criminal behavior of individuals by law enforcement officials.

The most effective in predicting individual criminal behavior is the method of expert assessments. Psychologists and doctors, parents, relatives, acquaintances of a person, managers and colleagues can act as experts. The method of expert assessments is widely used in criminological forecasting in the process of making decisions in a criminal case (choosing a measure of restraint, exemption from criminal punishment, sentencing, and others).

The method of modeling criminal behavior for prognostic purposes involves the construction of appropriate models based on the principle of structural or functional similarity of real criminal behavior for the purpose of its knowledge (study) and individual forecasting. A prognostic model is understood as a model of the forecasting object, the study of which allows obtaining information about the possible states of the object in the future. Therefore, this model can provide information about the possible behavior of the modeled object. The created models can be logical, mathematical, computer, graphic and so on.

Two fundamental approaches are applied to the construction of prognostic models of social behavior: generalization of external indicators of a person's behavior and study of internal motives and attitudes that predetermine the external behavior of a person.

The first steps in modeling the genesis of crime were made by V.N. Kudryavtsev [1]. Modeling of criminal behavior may well be used for individual criminological forecasting. Comparing the motivation of the subject whose behavior is predicted with the simulated motivation (genesis) of criminal behavior and establishing similarities and differences between them, one can judge the depth of the antisocial orientation of the person, the criminality of the external conditions of motivation and their possible interconnected development in the near future.

In criminology, when predicting individual criminal behavior using the modeling method, it is customary to calculate the average probability of committing crimes based on the crime rate. In our country, 1 out of 50 people commits a crime every year. Accordingly, the average probability is 1/50. In the process of committing a crime, the probability is 1. This means that in order for a person to commit a crime, the average probability must increase by 50 times. This probability is increased by criminogenic qualities and criminogenic circumstances. The most criminogenic qualities can increase the likelihood of committing a crime by 2-3 times.

Statistical cards for a crime, for a person, for a criminal case and for a convicted person carry a lot of information about the subject, his motivation, the crime, the circumstances of its commission, the behavior of the person after conviction, and so on. The databases (taken for one year or several years) contain information about millions of persons, crimes and other circumstances that are statistically reflected. On this basis, many indicators used in mathematical predictive models can be calculated. Based on the results of the calculations, one can judge the degree of approach of the behavior of the studied person to the threshold value, indicating the degree of criminality of the individual, the conditions of his life and activity, life and leisure.

The considered approach is one of the possibilities of using multifactorial mathematical modeling. In the criminological literature, there are other proposals for the use of mathematical predictive models [2]. Nevertheless, the problem of individual prediction of criminal behavior in general and with the help of mathematical modeling in particular is at the stage of scientific and practical development. The use of computer technologies to record offenders, crimes, the conditions for their commission and other criminologically important circumstances will make it possible to solve it more effectively.

As a promising direction in the development of predicting criminal behavior, forecasting using multivariate statistical models (tables), including an image recognition model, was called [3]. The essence of the "image recognition model" method is that a specialist, when faced with any new phenomena or objects, can "recognize" them, that is, attribute them to one or another class (image) already known to him by the presence and number of significant signs (indicators), despite the fact that such an act is purely individual. This method is based on the assumption that the past behavior of an individual determines its behavior in the future. However, this is a very strong assumption, and its validity cannot be deduced by speculative reasoning alone.

The main difficulty associated with predicting individual criminal behavior by pattern recognition is the development of a formalized description of the personality. There can be many signs that characterize a person, while it is impossible to answer a priori the question of which of them are the most significant and informative from the point of view of a criminological forecast. There is also a difficulty not only in the formalization of the description, but also in the measurement of criminologically significant features, especially since not all of them can be measured. It should be borne in mind that any criminological feature is important for prediction, but its significance may vary for different personality types. The criminological importance of a feature can be put in relation to how powerful a predictive tool it is, which can be determined by means of the criminogenicity coefficient.

It seems that when forecasting, it is necessary to take into account the totality of criminological features, since each of them individually may have a rather low information content regarding criminal behavior. In this regard, there is a need to determine various combinations of these features. The method of combining features makes it possible to obtain a set of features that is informatively significant for forecasting than each of the original features. It seems that this is the core of the pattern recognition method. The theoretical value of the considered approach lies in the fact that it allows you to put on a solid formal and quantitative basis the definition, construction and evaluation of criminologically significant features.

The method of multivariate statistical models in predicting individual criminal behavior was also used by R.M. Abyzov in relation to minors, who studied the empirical data of more than 1 thousand minors. In the prognostic model, to describe the personality of a juvenile delinquent, he used 68 signs, which were subsequently combined into information blocks, on the basis of which 25 signs-factors were identified, on the basis of which the forecast was made [4].

A similar approach to forecasting was justified by L.V. Chuprina [5]. She suggested summarizing materials obtained from various sources, however, this also raised the question of the choice and content of prognostic features. The author based such a forecast on the signs that determine the social affiliation of the individual and the nature of the crime committed. However, such a limited

approach to the choice of features, it seems, will not allow for the prediction of individual criminal behavior, even if only because the psychological and motivational characteristics of a particular person are not taken into account when making a prediction.

A similar approach was used by A.Ya. Minin [6]. When developing a predictive model, they were asked to study recidivism by classifying based on the principle of creating groups of extreme parameters.

L.M. Prozumentov and N.V. Olkhovik propose a method for predicting the behavior of persons released from colonies of general and strict regime, based on the results of sociological research. In their opinion, the results of sociological research make it possible to obtain the most complete and reliable information about the person for whom the forecast is made, which will greatly improve the quality and reliability of the forecast [7].

The study of the influence of psychological characteristics of a person within the framework of criminal and penitentiary psychology made it possible to single out an independent type of forecasting - a psychological (clinical) forecast. So, one of the proposed methods of this type is based on the results of a comprehensive analysis of the socio-demographic and individual psychological characteristics of the personality of an imperfect criminal, the other (auto-aggressive behavior of convicts in correctional institutions) is based on four groups of prognostic factors: attempts of auto-aggression existing in the past, features of education, relationships with the social environment and possible "starting situations". Despite the fact that these methods of clinical prognosis make it possible to take into account personality traits in the mechanism of criminal behavior, they are criticized in the scientific literature for the incompleteness of the totality of objective and subjective factors taken into account, and, consequently, for the not too high reliability of such predictions [8].

The authors of the described methods were based on the characteristics of the offender's personality and on the fact that a crime is a random event, the probability of which is determined by the properties of the human personality, the complexity and diversity of the processes that determine its behavior. The lack of strict determination, orderliness of the causes and conditions for the commission of crimes, the completeness of coverage of criminogenic factors is indicated as the main reason that the proposed approaches and forecasting methods have not been widely used in practice. Meanwhile, it is indisputable that the prediction of individual criminal behavior is the basis and necessary condition for individual crime prevention, the main content of which is educational work.

At present, the prediction of individual criminal behavior is impossible without the use of modern mathematical methods and the capabilities of computer technology. So, A.V. Petrovsky developed a method for individual prediction of criminal behavior based on the use of computer neurotechnologies. The principle of operation of neuro-computing is to process a digitized textual sample of causes and conditions that determine the mechanism of criminal behavior, personality characteristics of criminals, various motivations, as well as the qualities of law-abiding citizens, until the program itself creates some "average samples of individuals" and will learn to recognize criminals with the degree of probability necessary for an expert. Unlike deterministic and reference methods, the neural network autonomously analyzes the input information and determines whether the input data agrees or does not agree with the characteristics that the computer is able to recognize. It was assumed that the use of the mathematical apparatus of neural networks in the creation of appropriate criminological methods for predicting the behavior of an individual would significantly get rid of subjectivity in research, as well as minimize the requirements for mathematical processing of the obtained material. This, in turn, will make it possible to take into account prognostically significant indicators in a simplified form and, accordingly, improve the quality of an individual forecast. Despite the simplicity of this method, the problem of obtaining sufficient and reliable information about the predicted phenomenon remains insoluble. However, for the effective operation of these neural network criminological techniques, it is necessary to collect a huge amount of data, which is not always possible to obtain.

Consequently, the reliability of the resulting forecast decreases in direct proportion to the amount of information about a particular person [9].

There are also two approaches to probabilistic forecasting of individual criminal behavior, which is a concretization and logical conclusion of the forecasting of crime and its individual types. From the forecast of crime in general, its individual groups and types, one should proceed first of all when determining a conditional statistical group of possible offenses. Such an approach, let's call it **deductive**, focuses on certain social groups or categories of citizens, optimizes the process of individual forecasting and puts it on a reliable statistical basis. "With this approach," notes V.N. Kudryavtsev, "we begin the analysis not with a single fact and not with a specific person, but, on the contrary, with a social assessment of various groups of offenders" [10].

Top-down, deductive forecasting has its limits. Bringing us closer to the goal, it exhausts itself at the level of the most criminogenic groups, spheres, phenomena and processes. Therefore, in parallel with deductive forecasting, the process of counter predictive activity should proceed, starting from a direct study of the behavior of specific individuals and going to the statistical patterns of individual criminal behavior and crime in general. Let's call it conditionally **inductive**, or ascending.

Both approaches, both deductive and inductive, merge at the level of conditional statistical groups characterized by an increased degree of criminogenicity or an increased crime rate. The use of counter approaches in criminological foresight combines the prediction of crime and individual criminal behavior into an interconnected system of predictive activity.

Thus, at this stage in the development of criminological science, not only is there no ideal methodology for predicting individual criminal behavior, but a general rule has not been formulated that would allow one to reliably distinguish between persons who should or should not be expected to commit crimes. In addition, almost all of them are characterized by such qualitative shortcomings as the limited sources of criminologically significant information, the incompleteness of accounting for external or internal factors affecting the behavior of an individual, the lack of complexity in accounting for criminologically significant information necessary to make a forecast about a possible individual illegal behavior of a person.

Therefore, the possibility of improving the quality of forecasting is seen in the combination of existing approaches. Their merging will allow taking into account both objective and subjective aspects that affect a person when choosing a mode of behavior, as well as taking into account all the advantages of existing approaches and avoiding bias in assessing the significance of certain factors influencing an individual's behavior.

References:

1. Kudryavtsev V.N. Genesis of crime. Experience in criminological modeling. M., 1998. p. 22-36, 170.

2. Antonyan Yu. M., Bluvshtein Yu. D. Modeling methods in the study of the criminal and criminal behavior. M., 1974; Zakatok A.P. Decree, op.; and etc.

3. Avanesov G.A. Criminology and social prevention: Textbook. M.: Academy of the Ministry of Internal Affairs of the USSR, 1980. S. 380. Schneider G.J. Criminology: Translation from German / under the general editorship and with prefaces. L.O. Ivanova. M .: Publishing group "Progress" - "Univere", 1994. p. 192-198.

4. Abyzov R.M. Experience in the use of expert assessments and the method of pattern recognition in predicting the criminal behavior of minors // Questions of combating crime. M., 1984. Issue. 41. p. 40-48.

5. Chuprina L.V. Probation regime for parole: Dissertation of a candidate of legal sciences. Tomsk, 2012, p. 70.

6. Minin A.Ya. Informatization of criminological research. Yekaterinburg, 1992, p. 70.

7. Olkhovik N.V. and Prozumentov L.M. Recidivism of convicts and its prevention. - Tomsk: University Publishing House, 2009. p. 50.

8. Komlev V.A. Prediction of auto-aggressive behavior of convicts in correctional institutions // Human Ecology. 2007. No. 12. p. 45-47.

9. Petrovsky A.V. Individual criminological forecasting of the commission of mercenary and violent crimes by young people. SPb., 2002. p. 159.

10. Kudryavtsev V.N. Causality in criminology. M., 1970, p.165.