

Forensic Identification of Persons by External Signals

Ovidiu Andrei Hamburda

*Faculty of "Economic Sciences and Public Administration", University "Stefan cel Mare", Romania;
Master in Criminal Sciences at "Dimitrie Cantemir" University, Bucharest, Romania, ovidiu.andrei20@yahoo.com*

ABSTRACT: Since ancient times, it has been necessary to differentiate one person from another, using for this purpose elements of individualization such as the external appearance of the face, corpulence, the existence of congenital or accidental malformations, of certain habits. The distinctions between the external aspects of the persons were used with the passage of time and by the state legal bodies, in order to identify the criminals. Among the fundamental concerns of the judicial bodies were those regarding the identification of persons based on the external characteristics specific to each individual, and on the other hand, the creation of a system of records and registration of persons who contravene the legal norms. Based on the generalized practice of the judicial bodies, it was concluded that the main elements that can underpin the identification of missing persons, after signals, are given by the differences between the anatomical and functional properties of each individual.

KEYWORDS: anatomic, criminal, face, individualization, malformation, missing, signals

Introduction

The individuality and relative stability of the somatic characteristics of each adult individual constitutes the scientific basis of this identification. In order for a person to be able to be distinguished from another, under a forensic report and at the same time identified, it is necessary that the description of his anatomical characteristics be made according to scientific methods, using appropriate terminology and precise criteria for appreciation of the dimensions. The signals - the external characteristics of the persons allow their identification in order to discover the criminals, to follow and to arrest the investor and the convicts who escape from the execution of the punishment, the recognition of the recidivists the search for missing persons or the identification of unknown bodies (Buzatu 2013, 91). The description of the signals - named in the specialized literature and the method of the spoken portrait - has the characteristics of the body in its entirety, the emphasis being placed on the anatomical particularities of the face, being targeted in the description the volume, the shape, the position and the color of the observed parts, each element being appreciated in the report with other anatomical elements that make up the described assembly. The modalities of description differ depending on the person performing them, but also on the technical equipment auxiliary to this purpose (Dumitru and Panghe 1974, 125). In some cases, the description of an individual by the eyewitness may be incomplete or even erroneous, due to objective or subjective circumstances, which impede a good perception. For this purpose the witness can be helped through various technical procedures, starting from the drawing - composition and ending with the computerized robot portrait (Stancu 2008, 173).

Description of static shapes - the spoken portrait method

In describing the signals of a person, a precise and unitary terminology must be used in a logical sequence (Buzatu 2013, 92). The identification of persons by the method of the spoken portrait is based on the principles of forensic identification, which is based on the thesis of didactic materialism, according to which all the objects of the material world are identical only with themselves, they are individual, and their characteristics are not repeated. When the spoken portrait of a person is drawn up, the characterization of the signals will be made according to size, shape, position, and to some and by color (Locard 1931, 119).

In determining the sex, when directly observing the person, certain elements such as the expression of the physiognomy, body constitution, facial and bodily hair, the degree of development of the breasts, hips, and the clothing that represents a defining element must be taken into account. Age or age is probably determined, because the evaluation of an age can be influenced by certain factors. The description of the shoulders is made according to their inclination and their width. In terms of width, they can be straight, raised or lowered. In practice and in forensic theory, the main elements of the face are described according to their location, starting with those located in the upper area, continuing with the middle one and then the lower one (Engels 1966, 180). The forehead is described viewed both from the front and from the profile, insisting on the height, the width, the contour, the inclination and the particularities. The eyelids are presented according to the length, width, shape of the description, considering whether they are large, medium or small. The nose is examined from both the front and the profile. The ear is appreciated as one of the most informative organs of the face. It is of particular importance because of its position on the contour of the head, but also its shape, size or other morphological elements (Minovici 1900, 50).

Description of dynamic forms

By dynamic signals are meant those characteristics of a functional person it is meant to complement the possibilities of identification and they concern in particular the body, the way of walking, mimicry, look, various forms of manifestation (Dumitru and Panghe 1974, 7). The body's condition depends on how the muscles are contracted, the harmony of the movements, etc. Particularities may be observed that are conditioned by the shape of the spine (prominent chest, cock) or attitudes characteristic of certain professions. The position of the head is usually within the general outfit of the body, but it presents some of its own characteristics through a certain more constant position that can be bent forward, backward, right or left. The allure of a person's gait is an important element for their identification, due to the fixation of movements through dynamic stereotypes. Mimics - in general, when describing expressivity, a special attention is paid to the gaze, which involves both the movement of the eyes and part of the muscles of the face, establishing a stable element in the image of a person (Ifrim and Niculescu 1988, 30).

Description of particular signs

Particular signs are defined as anatomical or functional defects due largely to congenital malformations or are the consequences of accidents or surgical interventions, of a wide and varied variety (Panghe and Dumitrescu 1974, 10). They can wear different shapes, such as: scars, skin color, warts, moles, blemishes, other birthmarks, tattoo, etc. These are particularly important elements for the identification of persons and bodies (Buzatu 2013, 95). Scars - their appearance on a person's body usually appear as a result of surgery or accidents. In medical analysis, the scar is a connective tissue that unites the lips of a wound of any kind: operative or traumatic, which replaces where necessary, the lost tissue. The description of the scars is made by color: red, pink, vineyards, discolored, black, whitish etc.; by shape: rectilinear, circular, oval, semi-oval or stellar; by size: large, medium or small. Wrinkles and skin of the face - represent those wrinkles of the skin, described by their shape and depth, but also by the area in which they are positioned on the human face. From an identification point of view, an informational value is represented by the frontal wrinkles and those positioned in the orbital area, described in terms of contour, number and depth. The tattoo is known since ancient times and is still applied for aesthetic or medical reasons (in order to hide certain scars) (Voinea 1999, 10). Tattoos were later noticed in Europe than in Africa, Asia or America and spread among sailors, detainees people with disabilities women with mild morals (Ilie and Nitu and Boalbes 2008, 243).

Thus, it was very easy to identify a person in terms of morality, profession, surroundings, or even the person's past. In the contemporary period, tattoos represent distinctive signs belonging to bands, or are inscribed on the skin as emblems of events or the names of persons who have been part of an individual's life. Scars - their appearance on a person's body usually appear as a result of surgery or accidents. In medical analysis, the scar is a connective tissue that unites the lips of a wound of any kind: operative or traumatic, which replaces where necessary, the lost tissue. The description of the scars is made by color: red, pink, vineyards, discolored, black, whitish, etc.; by shape: rectilinear, circular, oval, semi-oval or stellar; by size: large, medium or small (Cârjan and Chiper 2009, 187).

The sketched portrait

The sketched portrait or portrait sketch consists of drawing a portrait, after the description of the victim or witnesses, by a person with very good plastic qualities (Buzatu 2013, 95). In the elaboration of the sketched portrait, the figure of the person is described as in the description of the head, taking into account the specific elements, noticeable at first sight, but a good portraitist can reproduce different features of the body, the attire, etc. For its preparation, it is necessary the collaboration of two parties. On one side are the witnesses, the people who have visual information or the victim, and on the other side is the criminal. The criminals to facilitate this method, have provided witnesses with a series of photographs with famous criminals and criminals, and the people who describe can choose photos that portray certain features of the described individual (Pășescu 2000, 33).

The photorobot

The photorobot is the method of identification through a photographic collage of facial elements taken from photographs of the signals belonging to different persons. The album intended for this purpose is composed of a set of photographs taken under similar conditions of framing and size, so that the three facial areas (frontal, nasal, oral) overlap perfectly. Criminals have recommended that the areas be divided into a number of five, in order to widen the range of possibilities of making the robot portrait of the person pursued. The photographs are selected along these areas and allow the witness to select and blend the facial areas that he considers similar to the perceived image. Finally, the obtained image is retouched and later refocused (Ciopraga and Iacobuță 2001, 196).

Identi-kit and Photo-identi-kit

The fundamental premise of identification systems is that nature never creates two identical persons. These methods are among the technical means frequently used in the practice of criminal investigation bodies. Thus, it is made available to the witness or victim, an album featuring dozens of variants of facial elements. It should be specified that, in performing this process, each facial element in the album is reproduced separately on a transparent film bearing the same code number (Ionescu 2007, 150).

The computerized robot portrait

In the search for a method that will not fail, the specialists in electronic computing have perfected another method of composing the facial elements within a system in which the information provided by witnesses, victims or other persons or information regarding criminals or missing persons is stored. (Popescu and Nica 1995). The electronic image obtained in this way, is made from the graphic rendering of the human figure, but also certain elements taken from different photographs. All this information is stored in a program known as a computer portrait (Popa 2011, 25).

Anthropometric techniques

Automatic identification systems for papillary fingerprints, also referred to as AFIS - Automated Fingerprint Identification System - show multiple advantages compared to the classic working system of fingerprint libraries and optical instruments such as: Automatic fingerprinting even the traces of traces fingerprints; Image processing to fill gaps by intensifying areas with clear meticulousness, adjusting the contrast or inverting ridges (black and white, left-right); Direct fingerprint reading by electronic scanning; The processing of the fingerprints and the operative establishment of the identity of the persons and the committed acts, irrespective of the distance between the place of the investigation and that of the crime (Ștefănescu and Cârjan 1990, 213).

Identification of missing children in suspicious circumstances through the digital aging technique of photography

The number of juveniles declared missing increases each year, most of them being located or returning home shortly after the disappearance. When a juvenile is declared missing, it is essential for the investigator to know his or her signals and to have all relevant information referring to the person of the minor. If the disappearance of the child was reported many years ago, the original photograph loses its usefulness, because the minor progressively changes its appearance as time goes by. The investigator must have one the most recent photo of the missing child in order to identify the statements of people who might recognize him, to publish posters and flyers and to launch on new search directions. It is uncertain that a person will recognize a minor based on a photograph in which he is 2 years old or a photograph that is long dated. The ability to recognize a person can be influenced by changes in the figure of the person that appear naturally as they grow older. The progressive aging program systematizes knowledge about the anatomy of the most important 14 bones and over 100 muscles as well as how they develop (Șerfezeu and Lăzău 2008, 114).

Conclusions

The theory of forensic identification has proven to be indispensable to the practice of expertise, investigation but also of judgment. Ignoring the possibilities offered by forensic identification in a developmental stage of science and technology, such as misinterpretation of the data obtained, has made important facts remain unknown, sometimes delaying or even preventing the truth from being discovered. According to this graded passage, the identification process goes through two major stages, namely the determination of generic membership and individual identification. In this regard, I believe that the active inclusion of technology in the field of forensics is strictly necessary, and some of the most efficient methods of identification are those that are achieved by processing information such as: Image-track, computerized robot portrait, Photo-identikit or identikit. I believe that the highest degree of accuracy is the identification based on the registration in the genetic database. Although the system is relatively new, the accuracy percentage is very high, and such probabilities only create the certainty that the identification is optimally done and the errors will be absent, which in principle interests us, because no one should held liable for an act that he did not commit, or the identity of one person should not be attributed to another in this sense as his rights are being harmed.

References

- Annual report of the Romanian Center for Sexually Missing and Exploited Children. 2009. Bucharest.
 Buzatu, Nicoleta-Elena. 2013. *Forensics*. Bucharest: Pro Universitaria Publishing House.
 Cârjan, Lazăr, Mihai Chiper. 2009. *Forensics, Tradition and Modernism*. Bucharest: Publishing House Curtea Veche.
 Ciopraga, Aurel, Iacobață Ion. 2001. *Criminal Law*. Iași: Junimea Publishing House.
 Collective authors. 1984. *Dictionary of Criminal Law*. Bucharest: Scientific and Encyclopedic Publishing House.

- Dragomir, Ilie, Nițu Adrian and Boalbeș Marian. 2008. *Criminal Law Guide for Gendarmes*. Bucharest: Ministry of Interior and Administrative Reform Publishing House.
- Dumitru, Constantin, and Panghe Corneliu. 1974. *The spoken portrait*. Bucharest: Cultural Service Publishing House.
- Engels, France. 1966. *Nature Dialectics*. Bucharest: Politics Publishing House.
- Ifrim, Mihai, and Niculescu Gheorghe. 1988. *Compendium of the anatomy of man*. Bucharest: Scientific Publishing House.
- Ionescu, Florin. 2007. *Criminal Law*. Bucharest: Universitară Publishing House.
- Locard, Edmond. 1931. *Treaty of Criminalistics*. Vol. III. Lyon.
- Locard, Edmond. 1968. *Police Technical Manual*. Paris: Payot Publishing House.
- Minovici, Mina. 1900. *Anthropological School (Bertillon) for police officers*, course summary – Bucharest.
- Pășescu, Gheorghe. 2000. *Criminalistic interpretation of the traces from the place of the deed*. Bucharest: Națională Publishing House.
- Popa, Gheorghe. 2011. *Methods and techniques of forensic identification*. Bucharest: Publishing House AIT Laboratoires.
- Popescu, Gheorghe, and Nica Constantin. 1995. *Computerized robot portrait*, BBC, no 1.
- Șerfesu, Nicolae, and Lăzău Florin. 2008. *The biological process of aging; the effect of facial aging in support of crime*. Romanian Crime Magazine. Bucharest.
- Stancu, Emilian. 2008. *Criminal Law Treaty*, 4th edition. Bucharest: Universul Juridic Publishing House.
- Ștefănescu, Paul, Cârjan Lazăr. 1990. *Science vs. Crime: criminology, forensics, forensic medicine*. Bucharest: Științifică Publishing House.
- Vintilă, Gheorghe. 2001. Craiova: *Criminalistics*. Themis Publishing House.
- Voinea, Dan. 1999. “The technique of the Portrait spoken”. In *Criminal Magazine*. Bucharest. No 4.
- Zainer, William, and Zima Herbert. 2002. *Le SIGMA project*. In R.I.P.C. no 10.