Presentations at the
9th Biennial Scientific Meeting of the International Association for Craniofacial Identification
Washington, DC
July 24–28, 2000

The following abstracts of the presentations are ordered alphabetically by authors' last names.

Quality Standards for Forensic Opinions on the Identity of Living Offenders In Pictures

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The forensic identification of persons in photographic documents follows established scientific criteria and methods. The recognition of human faces, however, is a highly developed, natural human skill. The widespread belief that a professional forensic identification is as easily accomplished as common facial recognition among individuals is problematic. In response to the problems generated by this mistaken belief, a group of university-based experts has formulated a set of quality criteria for such identification opinions. The goal of these criteria is the creation of an identification system that can be peer-reviewed for expertise. The criteria are as follows:

- The main principle of photographic identification is the assessment of detailed structures in a slow and thorough process and with a gradation of the result, as opposed to holistic, fast, and polarizing daily recognition.

- The country-specific judicial basis must be considered.

- Photographic cameras are recommended for surveillance equipment as video cameras have too low a resolution. A surveillance camera should not be installed too high above the scene because this reduces recognition of the lower face. For an identification, comparison pictures of the suspect should be made, preferably with the original security camera. An identification should be performed by picture-to-picture comparison and not by a picture-to-person comparison.

- The picture quality influences recognition. This is an independent variable that must be assessed in every extracted trait parallel to the assessment of the trait itself.

- Identifying traits are morphological structures that can be seen on the surveillance picture, particularly those of the face and ears, but also of the thorax or hands, or of stature and posture. Population frequencies are decisive in the assessment of traits, and the possibility of a secondary change of traits (e.g., through use of a mask or other means of obfuscation) should be considered.

- The expert opinion may explain the scientific bases of photographic identification. All traits found must be described, preferably using established anthropological nomenclature, but with

due regard that the opinion should be understood by non-experts. Partial expert commissions—for example, of an ear-should not be accepted. All principles used and assumptions made must be described through every step of the identification process. The result of an expert opinion is the identity probability.

- The identity probability depends upon the number and rarity of the traits found. If traits are independent from each other, the single probabilities are multiplied according to the usual probabilistic rules; if the traits are correlated, the covariance reduces probability. If trait frequencies are not formally known, they should be estimated. For the final probability result, a verbal formulation should be given, possibly also a figure, together with the range.

- The principle of preselection must be considered. The normal probability assessment depends upon the assumption that a suspect is a chance draw from the general population. If he or she has been found using the surveillance photograph, this is not a chance draw. Then every suspect named is similar to the offender. Consequently, the population-based probability assessment can not be applied, but the demands for rarity of traits increases, and traits that are normally not included in the recognition of persons, such as the ear traits, become important.

- As a general precaution, the possibility that a close genetic relative might also be suspected should be checked. He or she should be included in the identification process.

- The scientific basis of photographic identification is physical anthropology, which includes as a subfield the morphology of living persons. The assessment of external traits formerly used to diagnose paternity is particularly useful as a basis. A medical doctor or criminalist might acquire and develop the necessary knowledge and experience of physical anthropology during work on scene or in the field.

Several procedural steps are recommended for quality assurance, including regular determination of the intra- and inter-observer error, the exchange of model cases, consultation with colleagues before opinions are issued, and the examination of new members.

References

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