



"Dynamic Criminology": New Theory to Evaluate Properly what Biological Evidences means in Forensic Field

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Abstract

Actually in the processes the DNA tests assumes a dogmatic power. But, doing so, can happens that a "static forensic element" be overestimated. This involves a set of clues that the judge will have available to form his own conviction. However, judges need scientific evidence (cross-examined) and repeatable systems for their evaluations, thus overcoming the so-called "processo indiziario", or trial based just on clues. To overcome this and to increase the impact of science in the process, is proposed the theory of "Dynamic Criminology" where Judges and forensic scientists are co-authors. Dynamic criminology requires the strict answer to the questions: "Quis, quid, ubi, quibus auxiliis, cur, quomodo, quando and quantum". That literally means "who, what, where, by what means, why, how, when and how much Judges need to have scientific information about the person acting (quis); the action it does (quid); the place where it is executed (ubi); the means he uses to execute it (quibus auxiliis); the intended purpose (cur); the way it does (quomodo); the time it takes you and where it does it (when). For the purposes of efficient justice, the parameters indicated with exhaustive scientific answers must be used. This connects the theory of "Dynamic Criminology" to a process of strong scientific evidence, cross-examined together, whose demonstration is based on repeatability criteria. The basic idea of the new theory is to develop a "rewind" of what happens through the observation of the spatial disposition and the quantity of the biological evidences (in singulo first and in toto then). DNA tests give to the judges just the possibility to answer to the question "who"; in order to get answer to the other question is fundamental a deep focus on the biological evidences (area, size, number, quantity, quality, relative distance, etc.)

Introduction

The new theory of "dynamic criminology" was born because a thorough analysis by forensic judges and scientists showed critical points. In particular, in the forensic field, it is important that a DNA be evaluated as a "static element" because no information can give the genetic test about the trace deposition time and track deposition mode. This post is to be subjected to scientific verification. The "spatial distribution of tracks", "trace amounts" and "biological tissue from which the traces originate. By doing so, you can use single static evidence in a multi-integrated context, and by converging the scientific data, you can generate a reconstruction of the incident from the evaluation of the static elements in toto [1-5].

Material and Methods

In order to provide the correct basis for the judge, scientific evidence should be treated with according to the most modern scientific protocols; In particular, genetic evidence must be analyzed only in certified ISO 17025 structures. Tissue identification

tests must be recognized RSIDs, and extensive photographic documentation of the findings (single and full) must be provided. It is also necessary to produce a metric documentation of the spaces within which the finds were present and the distance between the different traces with their relative dimensions (in cm) [5-10].

Results and Discussions

Obtained the parameters of the spatial and quantitative distribution of the single tracks, and assumed the data of the genetic information, these must be considered by the judge first for the individual tracks (so-called "static elements") and only later, the Judges can perform an integrated analysis of scientific data, capable of reproducing the 3D model of the dynamic of the crime by exploiting scientific information from the sum of the single tracks. This reconstruction may tells to the Judges whether or not results from other scientific disciplines (such as legal medicine, ballistics or fingerprint analysis) are confirmed. By doing so, judges provide a repeatable system they need to evaluate the robustness of the data provided by the sum of the forensic science sectors. By doing so,



judges are put in a position to reduce the error for “misleading DNA-related” and above all, it provides an integrated and repeatable test evaluation system (also if the biosocial evidences are not enough for repeat again genetic tests). In particular, to achieve this result it will be very important to improve the search systems for cd latent tracks (eg Crimes coop et similia).

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