



A180 Professional Ethics and the Introduction of New or Novel Methodology

Douglas M. Lucas, DSc*, 5280 Lakeshore Rd, No. 1111, Burlington, ON L7L 5R1, CANADA

After attending this presentation, attendees will have a better understanding of the ethical and scientific obligations in the introduction of evidence based on new or novel methodology.

This presentation will impact the forensic science community by providing a description of the differing ethical responsibilities of the various participants based upon differences in their professional duties.

The word "ethics" is derived from the Latin "*ethos*" which translates as "customary behavior." Webster defines ethics as: "the moral principles which determine the rightness or wrongness of particular acts or activities." Simply put, ethics deal with the commitment to do what is right, good, and proper.

The definition of ethics used for this presentation is from Oxford: "the science of human duty in its widest context." If "human" is replaced with "professional" this definition may be applied to any profession. By linking "ethics" with "duty" in a professional context, a basis is established for understanding how a specific conduct may be considered quite ethical for one profession yet patently unethical for another—their duties are different. Nowhere is this more apparent than with forensic science because of its close association with three professions—science, law and law enforcement.

For example, forensic science and law enforcement are distinct professions with complementary but differing duties. During an investigation, it is quite acceptable for the police investigator to rely on information obtained from a variety of sources and in myriad ways. Conversely, the conclusions of the forensic scientist must be based solely on the demonstrable scientific evidence developed. For science and law, the differences in duties are even more distinct. Scientists are expected to be totally objective, completely impartial, technically competent, and openly communicative; however, it is the duty of the attorney to aggressively represent the interests of his client whether it be "the people" or a defendant. It is the scientist's duty to describe the evidence as it actually is; it is the lawyers duty to describe it in the light most favourable to his client.

The attempt to introduce new or novel methodology can produce ethical challenges for each of the professions. These will vary depending on whether the evidence relates to a totally new form of evidence or whether it is simply a new application of an existing science. They also may be different at the investigative stage and at trial. The "one off" type of case will also be distinct from a new application to "regular" types of cases.

The onus is always on the forensic scientist to ensure that a new method is based on sound scientific principles, is well documented, produces reliable results, has its limitations and sample requirements clearly established, and has been peer reviewed. If it is intended to go beyond the "one off" case or the investigative stage, it should also have been published for appropriate broad professional review. In the absence of any of these, the scientist has not fulfilled his professional duty.

The law enforcement officer is required to ensure that the information developed by the scientist is relevant to the investigation, is based upon proper contextual information, and, if the information is to be used in decision-making, that it is used as intended and not distorted in any way.

The prosecutor has a duty to ensure that the method produces information that is relevant to the issue(s), that it meets the requirements for admission into evidence, and that it is presented thoroughly and effectively. The defense attorney has the duty to understand the method sufficiently that appropriate challenges may be made in the best interest of the defendant.

When new/novel methods are to be used, all the participants have specific duties and, thus, related professional ethical obligations.

Ethics, New Methodology, Professional Duty