



Questioned Documents Section – 2003

J11 Handwriting Individuality Research: Consideration of Issues Attendant to Empirical Data Generation

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This paper suggests that the collection of empirical data to support the proposition of handwriting individuality is not a simple task and a report of a narrowly focused study illustrates this view.

The impetus for the research reported in this paper results from the recent criticism of handwriting identification and handwriting experts that has appeared in print and as attempted court testimony. A brief historical background of handwriting identification and its use in the American court system precedes an evaluation of its criticism and critics.

Special focus is directed to the critics' claim of the lack of empirical evidence supporting the scientific validity of the identification process and special abilities of handwriting experts. Existing empirical evidence is described and the limited university level research is discussed.

An effort is made to dispel the erroneous impression implied by critics, that meaningful research on the habit patterns of writers and the intercomparison of such patterns among writers is a reasonably undertaking. This first necessitates a discussion of the individuality and variation encountered in personal handwriting and factors influencing their development.

Proposed research designs to study writer individuality and variation attempts to ascertain the frequency of occurrence of specific elements (also termed characteristics) in the pattern of writing. A few of these elements include segments of letterforms, connecting strokes between letterforms and proportions within and among such forms. This type of design implies that there are a finite number of such elements and that number is of manageable size. Ideally, once the frequency of each element is determined in the study population a researcher would then determine the independence of each element. Having completed these two segments it is proposed that a statistical value of the concurrence of a number of the same elements in two writings can be determined. Past research in other areas of forensic science has produced the ability to determine the statistical significance of examinations of other types of physical evidence. In the case of handwriting individualization the search for this "prized" statistical significance will likely prove to be more elusive. Personality experience with both interwriter and intrawriter differences suggests to the author that among the many hurdles to first be overcome before successful research is the issue of what has been described as

The author's study of the handwriting of 500 different individuals is described and the results presented. The implications of the findings of this study on proposed lines of research are examined and examples of potential problem areas are explored.

The problems of acquiring acceptable writing standards, representative populations, and finally adequate population sizes are explained.

Handwriting identification was one of first forensic sciences to be utilized in the American justice system and apparently the first to receive positive comment in a U.S. Supreme Court decision. The earliest American practitioners of handwriting identification were individuals whose positions in commerce or education required them to make judgments about handwritten material. Some of those who demonstrated such skill were occasionally called upon to offer their opinions on handwriting, particularly signatures, in issue before the courts. These part-time examiners appear to have relied upon on a high degree of spatial cognition. The advent of the twenty century saw the publication of the first American books on handwriting identification and their authors, particularly Albert S. Osborn advocated a more organized an objective approach to handwriting identification.

Examiners who benefited from these texts and other early articles initiated the type of apprenticeship training that provided the declarative and procedural knowledge necessary in the development of those examiners who represent the beginnings of the profession of questioned document examinations.

The continuing history of handwriting identification has not been without controversy, for there have been individuals and groups of examiners who based their opinions on concepts and theories outside of mainstream standards. These controversial divergences have provided the topic for relevant published articles. Until recently there has not been any organized effort to dispute the concept of handwriting identification and the proposition that individual experts have the requisite skills to determine the authenticity of handwritten material.

Today's critics pronounce handwriting identification to be unscientific and handwriting experts to possess no greater skill in their specialty than as might be found in the general public. Interestingly, not only is this small group of faultfinders not scientific community but also is composed of law school faculty members devoid of academic preparation in science, and credentials in the study of expertise.

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