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Research Article

ESTABLISHMENT OF INDIVIDUALITY FROM THE ANONYMOUS LETTERS SCRIBBLED ON HIEROGLYPHICS SUBSTANTIALS

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ABSTRACT

Hieroglyphics substantial is the preeminent source of communication, business and in form of the security documents of our society. The hieroglyphical palimpsest are characterized unique to an individual similar like to fingerprints, palm prints, even DNA too. Every personal impart the information about their individuality in form of the signature/ writing along with the substantial. The identification of individual depends on the expertise and knowledge of examiner. This pilot study was carried out establish the identity from the anonymous letters written by the same individual over the substantial and to determine the variability present in hieroglyphics substantial. The results of handed over the level of individuality even when the subjects took proper time to scribble the material, yet left the sufficient information to nab out them from the suspected samples.

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INTRODUCTION

Forensic Science is a crucial appliance for the revelation or investigation of crime and administration of judicial system through providing acute information about the several clues recovered from the scene of occurrence¹. It depends upon the skills of forensic scientist, examination procedure, interpretation, reporting and court proceedings to support the evidences. Among all the evidences, a few of evidences play a vital role intimately linked to the legal system². Hieroglyphics substantial analysis is one of them which not only can reveal information about the tendencies of individual but also establish the identity of suspect from the written material over any kind of surface³. Now a day, a few of researches are going on to determine the personality traits, tendencies and look alike similarities from the hieroglyphics substantial. These substantials are frequently encountered in cases such as extortion, threat, terrorism etc⁴.

Handwriting is considered the visual impression/spectrograph of suspects brain in which the originate signals assay from nerve system through the arm, hand and muscles⁵. The substantive output is never exact similar to the prior one because a human is not a machine who will work similar, as a resultant some variation take place which is known as natural

variation. Identification of an individual from the handwriting is based on the convention that, it differs from the one person's writing to another at a degree to identify/recognize them⁶. Occurrence of minor changes such as unusual forms, shapes, movement, line quality etc. may have a little or no plausible explanation⁷. While a few factors which may be responsible for affecting the handwriting of an individual include physiological constraints, imitations, physical health, temperature, temporal posture etc. Several circumstances, that have an influence upon the conclusion of examination may include qualitative and quantitative insufficiency in the disputed substantial. It may have impoverished writing skills, degeneration in letter formation variation among the standards, deliberately distortion in the standards, anomalous plight of the author and unreliability at reproduction correspondence to lacking genuine/admitted hieroglyphics substantial⁸.

Any hieroglyphics substantial is compared based on set of features (class characteristics and Individual characteristics) for a judicial system. Any substantial which is written by an anonymous person/unknown, is generally known as hate mail/poison pen letter in which the culprit act assassin who deed cause much distress and anguish to the victim⁹. During the writing of any anonymous letter, culprit make changes in their own writing style following by few changes such as

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capital letters, change in slant, change in shape and size of letters, use of grotesque, odd letter formation, printed or script material, use of unaccustomed opposite hand, use of several writings materials¹⁰ (paper, pen, writing surfaces etc.).

These types of letters are rarely single happening (often accompanied by the psychological factors), the culprit may be present in audience will show the symptom of over confidence or personal reaction. During the preparation of such letters, the culprit uses the disguise their handwriting (only 45% could be successfully done) but are always unaware about the subconsciousness and unknowingly left their identity behind¹¹. In few cases, the culprit tried to distract the attention of investigating officers by pretending like an illiterate or semi-literate person. Now a day, the perceptible can be lifted from any digital source and could fasten anywhere which look alike the original one. It becomes very difficult to recognize the pattern, pressure or any kind of alteration/obliteration¹².

During the examination and authentication of culprit from the anonymous letters, an examiner must bear in their mind that they must determine the certainty from uncertainty. According to the principle of comparison, a comparison can make between like with like or difference with difference of the substantial. In few cases, two disparate individuals writing can resemble alike which may be cause of their education from same place, provided by same faculty, or influence from each other etc¹³. but even they can be discriminate because of their subconscious obsessions. It may be a responsible cause to insert the lack of spontaneity in written substantial or changes such as angle of slant, cursive writing, lacking natural variation which can be made during exemplar. It is only possible in those cases where admitted substantials are not available¹⁴.

To validate the authorship of any substantial, examiners has to rely on the photocopies to affix the authenticity. While examining such kind of evidence, expert must bear in their mind that provided information is limited and there is not any possibility to prove it beyond the shadow of suspension. In this study, an attempt was made to establish the identity of an individual from the anonymous letter based on the individual and class features of the author¹⁵. It was observed that if a person disguises his own writing/characteristics, can be apprehended because of individuality bases not on features but at the supportive features such as; indentation marks, size of letters, formation of middle order letters, spacing between cursive etc. the authenticity and individuality of suspect could establish which may lead to nab the suspect and put them behind the bars.

METHODOLOGY

In this pilot study, 30 samples including male and female from the age group 16-22 years were collected from Amity Institute of Forensic Sciences, Amity University, Noida (Uttar Pradesh). All the samples were collected since January 2017 to February 2017. The subjects were informed earlier about the purpose of the study and consent was taken. All the subjects were selected randomly. For the sampling purpose, a paragraph was put in form of the standard exemplification which was followed by all subjects.

Since this study was focused to establish the identity of an individual from the hieroglyphics substantial, Therefore, all the subjects were asked to provide atleast two samples each. Among two samples, one was carrying the legitimate writing of the subject. While in second sample, all the subjects were asked to disguise their legitimate writing without following the original standard exemplar. All the samples along with the exemplar separately were preserved in white A4 size white folder to avoid any kind of decontamination (foreign integrity).

Material

For the sample collection, A4 size white sheet along with blue ball point pen was used. To extract out the information about individuality of an individual based on their individual features, all the samples were examined with the help of a scale, hand lens of 10X including stereo-microscope, HB pencil and a camera of Samsung Galaxy S8 plus with 12 MP was too used for photography purpose.

Hypothesis

Every individual has their own inherited features of writing and during the preparation of any substantial, the movement of wrist/whole arm/ forearm movement occur without the knowledge of individual. So, the individuality of anyone can be establish based on the anonymous uncials present on any substantial.

RESULT AND DISCUSSION

Any handwritten substantial is considered the graphic record of the movement of hand and picture of nerve system. This graphical record implements its individuality in form of the features left behind over any surface. In this study, the hieroglyphics substantials were examined to check the rate of change in the writing of an individual. All the samples were examined based on the parameters that when an individual try to disguise his own writing in order to the signals sent by the nerve system, Is it identifiable or not? The author of the script can change the features of writing but the level of maturation, fluency, and rhythm which are already present in subconscious mind are left behind unknowingly such as curve, dimension of middle order letters (small letters present in word) provide the identity. Success in concealing or camouflaging one's identity, and therefore escaping detection through the process of forensic handwriting comparison, depends not only upon the extent one has modified his/her handwriting. From the survey of the literature listed herein, it is shown that most attempts to disguise are neither consistent nor successful. The genuine hieroglyphics substantial exemplar is given below in figure-1.

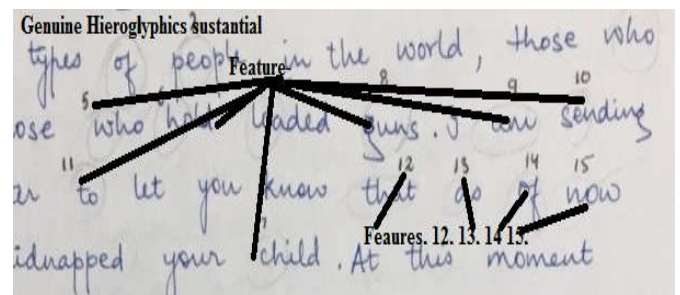


Figure 1 The Substantial carrying the genuine hieroglyphics letter information.

The subjects were asked to make a copy of the same hieroglyphics substantial in which anonymous letters were used. The comparison was made between the genuine and anonymous letters on the basis of the individual features. The anonymous letters exemplar is given in figure-2.

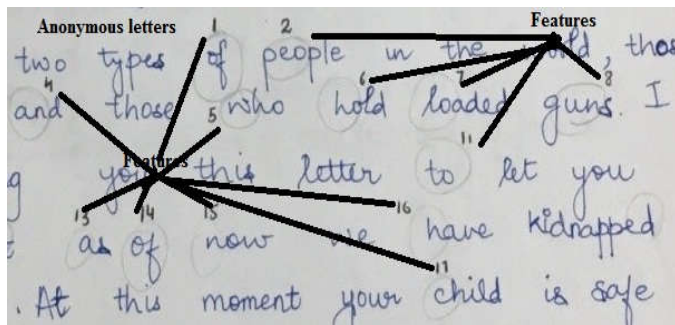


Figure 2 The Substantial carrying the genuine Anonymous letter information.

Among the genuine and anonymous substantial connecting stroke of “of” and the formation of letter f were similar while in genuine writing, word people “P” was having natural variation and in anonymous letter “P” was having the unusual pen lift, lacking of natural variation and the connecting stroke of “e” and “o” was similar. In genuine substantial, word “Who” the connecting stroke of e and o were exactly similar and the top formation of w was a little bit inward and indicate the similarity. All other observed similarities are shown in Table no.-1 in details.

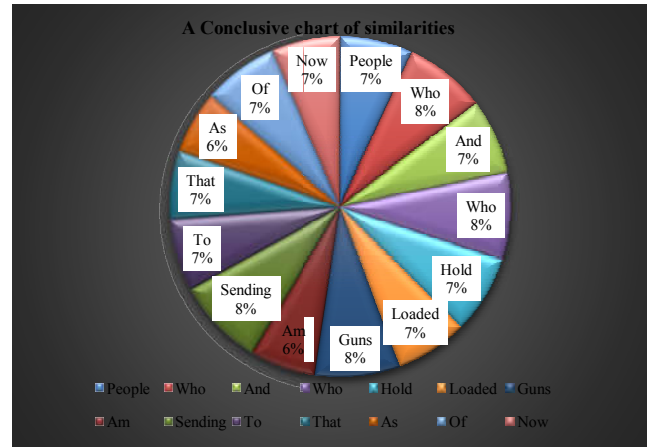
All the genuine hieroglyphics substantial were comprised with the anonymous substantial in of all the samples. Since human is not a machine who work similar yet there are a few of the characteristics which are adopted by the development of maturation. In all the observed sample, the substantial were examined and the similarities are given below in table no.-1.

Table 1 the observation table for all samples and similarities between the anonymous letter and genuine handwriting samples.

S.No.	Letters	Similarities in between letters of samples	Observation of samples	Percentage of similarities
1.	Of	Connecting strokes of o, formation of letter f.	27	90.00%
2.	People	Pen lift on letter p, connecting strokes of e and o.	23	76.66%
3.	Who	Connecting stroke of h and o, formation of letter w	26	86.66%
4.	And	Formation of letter n, connecting strokes of a and n.	24	80.00%
5.	Who	Formation of letter w, connecting stroke of h and o.	28	93.33%
6.	Hold	Angular formation of h.	25	83.33%
7.	Loaded	Formation of letter l.	23	76.66%
8.	Guns	Connecting stroke of letter u and n	27	90.00%
9.	Am	Formation of letter a and m.	21	70.00%
10.	Sending	Connecting stroke of e and n.	28	93.33%
11.	To	Formation of letter t and o. formation of letter t, pen lift on letter t.	23	76.66%
12.	That	Formation of letter a.	22	73.33%
13.	As	Formation of letter a.	20	66.66%
14.	Of	Loop of letter o, terminal stroke of letter f.	24	80.00%
15.	Now	Formation of letter n.	22	73.33%

All the samples were analyzed very carefully to get the exact information about the identity of an individual and to determine

the percentage of their matching. Since, an individual tries to disguise writing while imprinting their hieroglyphics over any substantial yet the signals sent by neuro system to the muscles could get accurately (100%) implemented but the presence of sub-conscious mind was able to give its presence. Whatever, we learnt during the maturation development phase of writing that remains in the sub-conscious mind and always accompanied along with the writing (hieroglyphics substantial) with their knowledge and left in form of interpersonal variation which remain in question. The matching of these interpersonal hieroglyphics skills is shown in graph no.-1 below-



Graph 1 Graphical representation in percentage of the similarities in anonymous letters.

As a resultant of the study, it was observed that the anonymous letters/ disguise hieroglyphics substantial also carry information about individuality without their knowledge in form of curvature, formation of middle order letters (metric system), top curve, and pictorial connection stroke direction etc.. these features are sufficient to reveal the information about individual. This study can be helpful in those cases where such type of matters exists.

There could be innumerable methods of disguising efforts and to control the stamping of individuality over any surface instead of putting the brain reflexes over substantial. Hieroglyphics substantial, which are individual, perpetual of every individual and useful tool for identification like finger prints, palm prints and sole prints, DNA. As it is already mention that nobody is perfect or 100% able to accurately disguise their writing skills because the individual features are engraved in the brain that it becomes negligible in act of deliberately deviation. An appearance of simulation doesn't mean that both are originated from the same source/written by same individual. An attempt towards the careful examination of such substantial can help to nab the culprit and put them behind the judicial bars.

CONCLUSION

Hieroglyphics substantial examination has proved its vital decisive role in any investigation. A few of such substantial carry distinctive level of information that includes disguised substantial, several types of forgery, computer generated substantial etc. It must be figured out that finding any sign/writing cannot establish the originality of any substantial, as whole as it could be a production form any severe manipulation. The evaluation from the photocopied exemplar is

not always possible render an opinion of elimination based on nature of script provided for analysis.

Several strains of forgery show distinguish feature which are identifiable but required an attention. Generally, the document examiner focuses to the style at first sight or slants, formation of capital letters because of the phase of changes among questioned and admitted/exemplar and some of the important aspects such as loops, arches, utilization of metric system which provides the similarity. As the writing of both hands is substantially unconscious product of human brain which may not be alike in quality but will suppressed merely by changing the hand. Even the credentials are not beyond the doubt, the adept can ask further exemplar cuneiform by unaccustomed hand. If the examination of hieroglyphics substantial could done carefully based on the features, no suspect will be left unidentifiable.

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