

# International Society of Polygraph Examiners

1704 Locust Street, 2d Floor, Philadelphia, PA 19103, United States.

Tel: +1-215-307-5600. Fax: +1-215-545-1773

Website: <http://www.isope.net>

## Research Digest

James Allan Matte, Editor

Volume 1

2023

Number 2

**CRITIQUE OF THE 4<sup>TH</sup> EDITION OF THE TERMINOLOGY REFERENCE THRU A  
LETTER TO THE EDITOR OF APA WHO REFUSED ITS PUBLICATION EXPOSING  
SIGNIFICANT ERRORS, OMISSIONS AND SELECTIVE SCHOLARSHIP**

**BY**

**JAMES ALLAN MATTE**

### FOREWORD

**By**

**Nathan J. Gordon**

James Allan Matte's Letter to the Editor is most compelling and exposes inaccurate description and function of the Quadri-Track Zone Comparison Technique's Fear and Hope of Error test questions contained in its Inside Track. The Inside Track's Fear and Hope of Error questions containing the suffix: "Regarding the target issue" was adopted and inserted into version 2 of the Integrated Zone Comparison Technique in 2005 with outstanding results. I found it especially effective and useful in cases involving sensitive sexual allegations where the stigmatic language of the sexual allegation was omitted and replaced with "regarding the target issue" the relevant issue which is thoroughly explained with the examinee. I firmly believe, that the Matte Quadri-Track Zone Comparison Technique and related Version 2, Integrated Zone Comparison Technique, deserve serious consideration to receive *judicial notice of acceptance* in the courts of the United States. This will provide the innocent examinee with admissible evidence that should raise "reasonable doubt" in the minds of the jury resulting in the innocent

defendant's exoneration. An excellent example of the effectiveness of the Quadri-Track Zone Comparison technique is found in the famous Malcolm X Case. On 4 March 1983, a polygraph examination using the Quadri-Track Zone Comparison Technique was administered by James Allan Matte on Khalil Islam, nee: Thomas Johnson, convicted and incarcerated at Dannemora State Prison in Upstate New York for the fatal shooting of civil rights leader Malcolm X in 1965. The polygraph examination was conducted for Columbia Pictures TV Show "Lie Detector" hosted by F. Lee Bailey, Attorney at Law, and Ed Gelb, Past President of the APA. The results indicated Khalil Islam was truthful when he denied shooting Malcolm X, and Matte's results and TV program were widely shown throughout the United States and Canada. On 18 November 2021, after a twenty-two months investigation by the Manhattan District Attorney and the Innocence Project into the conviction of Khalil Islam and Muhammad Aziz, it was discovered that significant exculpatory evidence was withheld from the defense. This evidence was submitted by the District Attorney and the Innocence Project in a joint motion to the New York State Supreme Court which vacated the wrongful conviction of Islam and Aziz, fully exonerating them. The video recording of that TV show containing the polygraph test of Khalil Islam can be viewed along with an introduction at: [www.mattepolygraph.com](http://www.mattepolygraph.com). Click heading "Malcolm X Case" on right side of page in the JAM Publications section.

## INTRODUCTION

In 2012, the Third Edition of the Terminology Reference for the Science of Psychophysiological Detection of Deception authored by Donald Krapohl, Mark Handler and Shirley Sturm was published in *Polygraph*, Journal of the American Polygraph Association. This author submitted a *Letter to the Editor* of APA Mark Handler outlining several errors and omissions with recommended corrections for publication. Of particular concern was the false description of the Fear of Error and the Hope of Error test questions in the Matte Quadri-Track Zone Comparison Technique (formerly known as Quadri-Zone ZCT), stating: "Concept introduced by James Matte, and a central component of his Quadri-Track Technique. Because guilty examinees usually stand to lose something of importance if their deceptions are uncovered by the polygraph, Matte argues that they are hopeful that there will be an error in the outcome. **A challenge to Matte's hypothesis is that truthful subjects are also deceptive during testing - to probable lie comparison questions - and they too might be hopeful for an error to occur.** During testing Matte includes a direct question regarding the examinee's hope of an error and scores the question as a relevant question. See: Matte (1996); Matte & Reuss (1989); Nelson & Cushman, (2011)."

The above boldfaced sentence is incorrect and misleading inasmuch as it omits the fact that a **suffix** "regarding the target issue (relevant issue)" follows both the Fear of Error and the Hope of Error questions. See Matte 1978, 1980, 1993, 1996, 2000, 2007, 2011; Mangan et al 2008;

Shurany et al, 2009. Furthermore, the above Nelson Cushman 2011 citation could not be found in the references section of the *Terminology Reference* or in the Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph techniques (2011). The Quadri-Track ZCT was first published in 1978 in *Polygraph*, Journal of the APA which contained an explanatory paragraph directly below the Quadri-Track ZCT format on page 271 emphasizing the importance of including the suffix: Regarding the target issue (this arson, theft, burglary, etc., to both the Fear of Error and Hope of Error test questions. It is inconceivable that the authors of the Terminology Reference did not know that the Fear and Hope of Error questions did not include a suffix regarding the target issue, which begs the question as to the motive for such a misleading description of the format and function of the Hope of Error Question. Sadly, none of the recommended remedial corrections were ever published.

Ten years later, in 2022, the 4<sup>th</sup> Edition of the Terminology Reference authored by Donald Krapohl, Mark Handler and Michael Lynch was published in *Polygraph*, Journal of the APA. The same errors and omissions identified in the 3<sup>rd</sup> Edition published in 2012, were repeated in 2022, in its 4<sup>th</sup> Edition of the Terminology Reference, including its false description and function of the Hope of Error Question by omitting its suffix regarding the target issue. The fact that the authors were made aware of the suffix in the 2012 Letter to the Editor removes any excuse of its omission in their 2022 edition of the Terminology Reference.

In the right margin of this paper is a column containing Editor Handler's response to this author's 2022 Letter to the Editor, and this author's rebuttal. Handler does not respond to all comments by this author and some of them such as "Page 213. Zone Comparison Technique (ZCT)" Handler's response brings into question his judgement and intellectual honesty where he states "I disagree we were discussing the Backster SKY." In fact, the heading is Zone Comparison Technique (ZCT) and it lists You Phase, Federal, Integrated and Utah, all Zone Comparison Techniques, hence it should include the Quadri-Track Zone Comparison Technique.

A thorough review of the 4<sup>th</sup> Edition of the Terminology Reference by this author reflects serious selective scholarship and the unmistakable motive to discredit the Quadri-Track Zone Comparison Technique. After submission of my rebuttal to Mark Handler, he replied "My position has not changed." Handler's decision not to publish my Letter to the Editor nor implementation and publication of my recommended remedial corrections prevents the APA membership from discovering the truth and possible motives for the authors' selective scholarship. Hence, publication of my 2022 Letter to the editor with APA editor Handler's response and this author's rebuttal are being published in *Research Digest*, Journal of the International Society of Polygraph Examiners.

**Commented [MDH1]:** I disagree with Matte. I believe the challenge to his hypothesis is legitimate and certainly as plausible an explanation as his.

**Commented [JM2R1]:** Presence of the Suffix which you omitted, removes your argument. The fact that you omitted the Suffix when you had to know of its required use in the Fear and Hope of Error Questions raises questions about motive and selective scholarship.

## A Letter to the Editor Regarding the APA's Terminology Reference for the Science of Psychophysiological Detection of Deception

James Allan Matte

Dear Editor:

This critique in the form of a letter-to-the-editor is in response to the publication of the fourth edition of the Terminology Reference for the Science of Psychophysiological Detection of Deception, hereafter referred to as *Terminology Reference*, authored by Donald Krapohl, Mark Handler and Michael Lynch published by the American Polygraph Association in 2022.

The following inaccuracies and omissions were noted on the following pages of the Terminology Reference.

### Page 155. Confession criterion.

A list of published studies and articles concerning the use of confessions as ground truth omitted some studies that support the use confessions.

#### Corrective Comment

The following studies supporting the use of confessions as ground truth omitted from the Terminology Reference are listed below:

Light, E.D., Schwartz, J. R. (1999). The relative utility of the forensic disciplines. *Polygraph*, 28(3), 240-258.

Mangan, D.J., Armitage, T. E., Adams, G.C. (2008). Rebuttal to objections by Iacono and Verschuere, et al. *Physiology & Behavior*, 95(1-2), 29-31.

Mason, P. (1991). *Association between positive urinalysis drug tests and exculpatory examinations*. Unpublished doctoral dissertation. United States Army Criminal Investigation Command. Baltimore, MD.

### Page 161. Directed Lie.

The following published articles should be included in the list of publications pertaining to the Directed Lie control question.

"Validation of Potential Response Elements in the Directed-Lie Control Question."

Matte, J. A. & Reuss, R. M. (1999). Published in *Polygraph*, Journal of the American Polygraph Association, Volume 28, Number 2, Pages 124-142,

"An analysis of the Psychodynamics of the Directed Lie Control Question in the Control Question Technique."

**Commented [MDH3]:** The Light 1999 article chronicled one of the most fundamentally flawed studies published. This is not persuasive.

**Commented [JM4R3]:** I disagree. It was good enough to be published in Polygraph. What about Mangan, et al, and Mason?

**Commented [MDH5]:** The Mangan response is also fundamentally flawed.

**Commented [JM6R5]:** I disagree.

**Commented [MDH7]:** Improper citation (incomplete)

**Commented [JM8R7]:** Citation corrected.

**Commented [MDH9]:** Same as above

**Commented [JM10R9]:** Citation corrected.

Matte, J. A. (1998). Published in *Polygraph*, Journal of the American Polygraph Association Vol. 27, Nr. 1, 56-67..

**Page 167. Exclusive (exclusionary) comparison question.**

A list of published studies concerning the description and effectiveness of the exclusive comparison question omitted studies and critiques that challenged the results of some of the listed studies.

Corrective Comment.

The following published critiques challenging the results of some of the studies listed in the Terminology Reference are listed below:

Matte, J. A. (November 2011). Commentary Horvath, F., Palmatier, J.J. Critique of Horvath-Palmatier Laboratory Study on Effectiveness of Exclusive v. Non-Exclusive Control Questions in Polygraph Examination. *Journal of Forensic Science* 53(4): 889-99.

Matte, J. A., Backster, C. (2000). A critical analysis of Amsel's comparative study of the exclusive v. nonexclusive comparison question. *Polygraph*, 29(3), 261-268.

**Page 168. Fear of Error.**

The last sentence states "Empirical support for the inside track is not yet available. See Matte (1996); Nelson & Cushman 2011"

Corrective Comment

Empirical support for the inside track is provided in the following published field studies. Furthermore, the "Nelson & Cushman 2011" citation could not be found in the References section of the Terminology Reference or in the References section of the Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques (2011).

Mangan, D. J., Armitage, T. E., Adams, G. C. (2008). A field study on the validity of the Quadri-Track Zone Comparison Technique. *Physiology & Behavior*, 95, 17-23

Matte, J. A., Reuss, R. M. (1989). A field validation study of the Quadri-Zone Comparison Technique. *Polygraph*, 18(4), 187-202.

Matte, J. A., (1990). *Validation study on the polygraph Quadri-Zone Comparison Technique. Research Abstract* LD 01452, Vol. 1502, 1989. University Microfilm International (UMI, Ann Arbor, MI.

Shurany, T., Stein, E., Brand, E. (2009). A field study on the validity of the Quadri-Track Zone Comparison Technique. *European Polygraph*, 1, 5-24.

The following is a correct and accurate description of the Fear of Error:

**Commented [MDH11]:** This is not a "study" it is a commentary from Matte.

**Commented [JM12R11]:** So what. The Commentary was requested by the publisher of Journal of Forensic Science.

**Commented [MDH13]:** Again not a study, simply Matte and Backster's subjective beliefs.

**Commented [JM14R13]:** Critical analysis of a published study should be considered.

**Commented [MDH15]:** The proposed evidence for their belief has been roundly criticized and evidence to the contrary has been provided.

**Commented [JM16R15]:** Evidence of the effectiveness of the Fear and Hope of Error test questions is found in the data supporting the results.

**Commented [MDH17]:** Does nothing to provide evidence for the inside track hypothesis.

**Commented [JM18R17]:** Same answer as above.

**Commented [MDH19]:** Same

**Commented [JM20R19]:** Same answer as above.

**Commented [MDH21]:** Dubious study - see APA meta-analytic review comments on questionable results reported.

**Commented [JM22R21]:** I disagree with the APA meta-analytic review which I found scholarly selective.

FEAR OF ERROR: A theory developed by James A. Matte after extensive field experiments to resolve false positives which revealed that an innocent examinee may show a significant response to relevant test questions as a result of his fear that an error will be made on his test regarding the target issue.

The Fear of Error question contains a suffix “regarding the target issue” and is treated as a control (comparison) question that is compared with its neighboring relevant question within the same Track, namely the Hope of Error question “regarding the target issue.” The Fear and Hope of Error questions are contained in a Track labeled “Inside Track” within the Quadri-Track Zone Comparison Technique. The innocent examinee’s Fear of Error was recognized by Dr. Paul Ekman (1985) who coined the concept as the “Othello Error.” The National Research Council of the National Academies of Science’s 2003 report (P. 74, 127), cited the innocent examinee’s fear of error as a potential for false positives.

**Page 174. Hope of Error:**

As reads in 2022 version of Terminology Reference:

Concept introduced by James Matte, and a central component of his Quadri-Track Technique. Because guilty examinees usually stand to lose something of importance if their deceptions are uncovered by the polygraph, Matte argues that they are hopeful that there will be an error in the outcome. **A challenge to Matte’s hypothesis is that truthful subjects are also deceptive during testing - to probable lie comparison questions - and they too might be hopeful for an error to occur.** During testing Matte includes a direct question regarding the examinee’s hope of an error and scores the question as a relevant question. See: Matte (1996); Matte & Reuss (1989); Nelson & Cushman, (2011).

Corrective Comment:

The above boldfaced sentence is incorrect and misleading inasmuch as it omits the fact that a **suffix** “regarding the target issue (relevant issue) follows both the Fear of Error and the Hope of Error questions. See Matte 1978, 1980, 1993, 1996, 2000, 2007, 2011; Mangan et al 2008; Shurany et al, 2009. Furthermore, the above Nelson Cushman 2011 citation could not be found in the references section of the Terminology Reference or in the Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph techniques (2011).

**Page 175. Inclusive (inclusionary, non-exclusionary) comparison question.**

Cites Amsel (1999); Podlesny & Raskin (1978; Horvath (1988); Horvath & Palmatier (2008).

Corrective Comment.

The Terminology Reference omitted the following published critiques of the Amsel 1999 and the Horvath-Palmatier 2008 studies which are listed below:

**Commented [MDH23]:** I disagree with Matte. I believe the challenge to his hypothesis is legitimate and certainly as plausible an explanation as his.

**Commented [JM24R23]:** Presence of the Suffix which you omitted, removes your argument. The fact that you omitted the Suffix when you had to know of its required use in the Fear and Hope of Error Questions raises questions about motive, intellectual honesty and selective scholarship.

Matte, J. A. (November 2011). Commentary Horvath, F., Palmatier, J.J. Critique of Horvath-Palmatier Laboratory Study on Effectiveness of Exclusive v. Non-Exclusive Control Questions in Polygraph Examination. *Journal of Forensic Science* 53(4): 889-99.

Matte, J. A., Backster, C. (2000). A critical analysis of Amsel's comparative study of the exclusive v. nonexclusive comparison question. *Polygraph*, 29(3), 261-268.

**Page 176. Inside-issue comparison question.**

States "Empirical support is mixed between advocate and independent research. See: Matte (1996); Mangan, Armitage & Adams (2008); Nelson & Cushman (2011); Shurany, Stein & Brand (2009)."

Corrective Comment

Matte 1996 is a textbook, not a study. Should have listed Matte & Reuss 1989, a field study published in *Polygraph*. Journal of APA. The studies by Matte & Reuss 1989; Mangan et al 2008; and the Shurany et al 2009 all provide empirical support for the Inside-Issue Comparison question. The remaining study of Nelson & Cushman 2011 purportedly a study with an opposing view cited by the Terminology Reference could not be found in the References section of the Terminology Reference or in the References section of the Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques. It could also not be found in the four APA journals published in 2011.

**Page 176. Inside-issue relevant question.**

States "Empirical support is mixed between advocate and independent research. See: Matte (1996); Mangan, Armitage & Adams (2008); Nelson & Cushman (2011); Shurany, Stein & Brand (2009)."

Corrective Comment

Same as Inside-issue comparison question.

**Page 176. Inside-track.**

States "Empirical support is mixed between advocate and independent research. See: Matte (1996); Mangan, Armitage & Adams (2008); Nelson & Cushman (2011); Shurany, Stein & Brand (2009)

Corrective Comment

Same as Inside-issue relevant question.

**Page 182. Matte "Dual-Equal Strong Reaction" Rule.**

**Commented [MDH25]:** Matte 1996 is a self-published book, not an edited text. I afford it little value.

**Commented [JM26R25]:** The 1996 textbook was initially written under contract with Charles C. Thomas, Publisher who restricted the book to 400 pages. I rejected this restriction and Thomas finally allowed me to publish the textbook using some of the illustrations from my 1980 book published by Thomas. The book was edited by Dr. Ronald Reuss, Professor of Biology, anatomy and physiology as Buffalo State College, State University of New York, and assisted with contributions by forty (40) experts in forensic science and the medical field, many with doctorates, all identified in the Acknowledgement section of the textbook. Forewords by the Honorable Vincent E. Doyle, NYS Supreme Court Judge, Cleve Backster, Charles M. Sevilla, Esquire, and review by Norman Ansley, Editor of APA highly recommended the textbook. The completed and published textbook was sent to Publisher Thomas at his request, who after its review wrote to me stating he was immensely impressed with it, would keep the book in his reference library, and would readily accept any future books from me regardless of its size. This textbook has also been reviewed in the New York State Bar Journal by Edward J. Imwinkelied, Law professor at University of California and member of the Champion Advisory Board who stated that "this text belongs on the shelf of any defense attorney who contemplates waging a polygraph war."

**Commented [MDH27]:** See above comments regarding a lack of empirical proof. The Matte hypothesis is simply an unproven belief.

**Commented [JM28R27]:** I disagree. The aforesaid textbook is authoritative, as indicated in above reply.

**Commented [MDH29]:** Same as above

**Commented [JM30R29]:** Same as above.

When the *red* and *green* zones being inter-compared both contain timely, specific and significant reactions of *maximum* and *equal* strength, a minus one (-1) score is assigned to that spot.

Tracings included: Pneumo and Cardio. GSR/GSG not included due to its volatility.

This rule is based on Backster's "Either-Or" Rule which considers the comparison question to be defective when it produces a significant reaction of equal maximum strength to the significant reaction produced by the relevant question which is ideally formulated. See page 406, Matte 1996 for details.

**Page 186. Non-exclusive (inclusive or inclusionary) comparison question.**

Cites "Amsel (1999); Horvath (1988); Horvath & Palmatier (2008); Podlesny & Raskin (1978).

Corrective Comment

The Terminology Reference omitted the following published critiques of the Amsel 1999 and the Horvath-Palmatier 2008 studies which are listed below:

Matte, J. A. (November 2011). Commentary Horvath, F., Palmatier, J.J. Critique of Horvath-Palmatier Laboratory Study on Effectiveness of Exclusive v. Non-Exclusive Control Questions in Polygraph Examination. *Journal of Forensic Science* 53(4): 889-99.

Matte, J. A., Backster, C. (2000). A critical analysis of Amsel's comparative study of the exclusive v. nonexclusive comparison question. *Polygraph*, 29(3), 261-268.

**Page 187. Othello Error.**

See: Ekman (1985).

Corrective Comment

Correctly cited in body of Terminology Reference but erroneously cited as Ekman (1992) in the References section.

**Page 194. Quadri-Track Zone Comparison Technique.**

States "Independent research has to date failed to support the construct of the inside track (see Nelson & Cushman. 2011)." "For a full explanation, see Matte (1996)."

Corrective Comment

Empirical support for the Quadri-Track Zone Comparison Technique is provided in the following published field studies. Furthermore the "Nelson & Cushman 2011" citation purportedly a study with an opposing view could not be found in the References section of the Terminology Reference or in the References section of the Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques (2011). It could also not be found in the four APA journals published in 2011.

**Commented [MDH31]:** See above comments.

**Commented [JM32R31]:** Same as above.

**Commented [MDH33]:** Was also mentioned in Ekman 1992

**Commented [JM34R33]:** So it was?

**Commented [MDH35]:** Addressed above

**Commented [JM36R35]:** Yes it was and its Corrective Comment needs to be addressed here as well.



Mangan, D. J., Armitage, T. E., Adams, G. C. (2008). A field study on the validity of the Quadri-Track Zone Comparison Technique. *Physiology & Behavior*, 95, 17-23

Matte, J. A., Reuss, R. M. (1989). A field validation study of the Quadri-Zone Comparison Technique. *Polygraph*, 18(4), 187-202.

Matte, J. A., (1990). *Validation study on the polygraph Quadri-Zone Comparison Technique*. Research Abstract LD 01452, Vol. 1502, 1989. University Microfilm International (UMI, Ann Arbor, MI.

Shurany, T., Stein, E., Brand, E. (2009). A field study on the validity of the Quadri-Track Zone Comparison Technique. *European Polygraph*, 1, 5-24.

**Page 208. time bar.**

States “Research has not supported this hypothesis, however. See: Amsel (1999); Podlesny & Raskin (1978); Horvath (1988); Horvath & Palmatier (2008).

Corrective Comment

The Terminology Reference omitted the following published critiques of the Amsel 1999 and the Horvath-Palmatier 2008 studies which are listed below:

Matte, J. A. (November 2011). Commentary Horvath, F., Palmatier, J.J. Critique of Horvath-Palmatier Laboratory Study on Effectiveness of Exclusive v. Non-Exclusive Control Questions in Polygraph Examination. *Journal of Forensic Science* 53(4): 889-99.

Matte, J. A., Backster, C. (2000). A critical analysis of Amsel’s comparative study of the exclusive v. nonexclusive comparison question. *Polygraph*, 29(3), 261-268.

**Page 213. Zone Comparison Technique (ZCT)**

Includes the “You Phase,” “Exploratory,” “S-K-Y,” “Federal,” “Integrated,” and “Utah.”

Corrective Comment

Should include the Quadri-Track ZCT.

**REFERENCES**

The following references should be added to the references section of the Terminology Reference 2022.

Light, G. D., Schwartz, J. R. (1999). The relative utility of the forensic disciplines. *Polygraph*, 28 (3). 240-258.

Mangan, D.J., Armitage, T. E., Adams, G. C. (2008). Rebuttal to objections by Iacono and Verschuere et al. *Physiology & behavior*, 95. 29-31.

**Commented [MDH37]:** Addressed above

**Commented [JM38R37]:** The cited published Commentary and Critical Analysis need to be included for readers to evaluate those listed references.

**Commented [MDH39]:** I disagree we were discussing the Backster SKY

**Commented [JM40R39]:** The heading is Zone Comparison Technique (ZCT) and it lists You Phase, Federal, Integrated and Utah, all Zone Comparison Techniques, hence it should include the Quadri-Track ZCT.

**Commented [JM41R39]:** Please add to the References the following:  
Matte, J. A. (Dec 1978). Polygraph Quadri-Zone Comparison Technique, *Polygraph*, 7 (4), 266-280.

Mason, P. (1991). Association between positive urinalysis drug tests and exculpatory examinations. Unpublished doctoral dissertation. United States Army Criminal Investigation Command, Baltimore, MD.

Matte, J. A. (Dec. 1978). Polygraph Quadri-Zone Comparison Technique. *Polygraph*, 7(4). 266-280.

Matte, J. A. (November 2011). Commentary on: Horvath F. Palmatier JJ. Critique of Horvath-Palmatier Laboratory study on effectiveness of exclusive v. non-exclusive control questions in polygraph examination. *Journal of Forensic Sciences*, 5 (6). 1664-1667.

Matte, J. A., Backster, C. (2000). A Critical analysis of Amsel's comparative study of the exclusive v. nonexclusive comparison question. *Polygraph*, 29 (3), 261-266.

Matte, J. A., Reuss, R. M. (1989). Validation study on the Quadri-Zone Comparison Technique. *Research Abstract*, LD 01452, Vol. 1502, University Microfilm International.