Letter to the Editor Regarding article by Nelson and Handler entitled Statistical Reference Distribution for Comparison Question Polygraphs.

James Allan Matte

Dear Editor:

This letter pertains to Appendix P, Matte Quadri-Track Zone Comparison Technique, of article entitled Statistical Reference Distributions for Comparison Question Polygraphs by Raymond Nelson and Mark Handler, *Polygraph*, Volume 44, Nr. 1, 2015.

In Footnote #9, Nelson and Handler, referring to the 2011 APA meta-analytic survey, stated "Studies supporting this technique have been described as substantially methodologically flawed, and it is considered unlikely that the reported accuracy rates will be achieved in field settings." The three field studies validating the Quadri-Track ZCT were in *field setting*s (Matte, Reuss 1989b; Mangan, Armitage, Adams 2008a; Shurany, Stein, Brand 2009), and the studies were not substantially flawed as indicated in this author's critique (Matte 2012). In fact, the aforesaid field studies met the most stringent requirements set forth in the *Guiding Principles and Benchmarks for the Conduct of Validity Studies of Psychophysiological Veracity Examinations Using the Polygraph* (Matte 2010), requiring a minimum sample of 50 confirmed cases (Matte 122, Mangan 140, Shurany 57). Conversely, the APA meta-analytic survey listed four studies that used sample cases from 20 to 30 cases validating their respective evidentiary techniques. One of them, the Nelson, Handler, Blalock, Cushman 2012 field study with a sample of 22 cases (Polygraph, In Press) has not been published as of 6 January 2015 (R. Nelson, personal communication 6 January 2015). Sample size has a direct relationship to the applicability of the study's results to the general population. As explained in detail in the aforementioned *Guiding Principles and Benchmarks*, several important elements present in field studies are lacking in laboratory studies, which is beyond the scope of this Letter to the Editor which APA now limits to 400 words, one table and 10 references.

In Footnote #9 Nelson, et al stated "published procedures for this technique involve the average total score per chart instead of the more common grand total score." This statement is inaccurate as reflected in diagram below and several published articles and studies listed in the *unabridged* 2000 word Letter-to-the-Editor published on website at www.mattepolygraph.com under heading of *Publications by James Allan Matte.*

The Quadri-Track ZCT Numerical Score Sheet and Conclusion Table

STIMULATION TEST DATA:	NUMBER SELECTED: CHART NUMBER:							

Quadri-Track Tri-Zone Quantification System Score Table

CHART 1	NDI	INDEF	DI			NDI	INDEF	DI			NDI	INDEF	DI	
PNE (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
EDA (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CAR (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CHART 2	NDI	INDEF	DI			NDI	INDEF	DI			NDI	INDEF	DI	
PNE (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
EDA (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CAR (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CHART 3	NDI	INDEF	DI			NDI	INDEF	DI			NDI	INDEF	DI	
PNE (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
EDA (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CAR (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CHART 4	NDI	INDEF	DI			NDI	INDEF	DI			NDI	INDEF	DI	
PNE (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
EDA (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )
CAR (33)	+3 +2	+1 0 -1	-2 -3	=( )	(35)	+3 +2	+1 0 -1	-2 -3	=( )	(24)	+3 +2	+1 0 -1	-2 -3	=( )

TARGET ( )   TOTAL: ( )   TOTAL: ( )   TOTAL: ( )

GRAND TOTAL: ( )

FOR ( ) CHARTS.

RESULTS FOR 1 CHART

% Pop:_____   RESULTS FOR 2 CHARTS

P.E.: _____

RESULTS FOR 3 CHARTS

RESULTS FOR 4 CHARTS

CONCLUSION TABLE

CIRCLE APPROPRIATE NUMBER BELOW		
+27 to +3	+2 to -4	-5 to -27
TRUTH	INDEFINITE	DECEPTION
CIRCLE APPROPRIATE NUMBER BELOW		
+54 to +6	+5 to -9	-10 to -54
TRUTH	INDEFINITE	DECEPTION
CIRCLE APPROPRIATE NUMBER BELOW		
+81 to +9	+8 to -14	-15 to -81
TRUTH	INDEFINITE	DECEPTION
CIRCLE APPROPRIATE NUMBER BELOW		
+108 to +12	+13 to -19	-20 to -108
TRUTH	INDEFINITE	DECEPTION

References

American Polygraph Association. (2011). Meta-analytic survey of criterion accuracy of validated polygraph techniques. *Polygraph*, 40(4): 193-305.

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

Matte, J. A. (2012). Critique of Meta-Analytic Survey of Criterion Accuracy of Validated Polygraph Techniques. *European Polygraph*, 6, 1(19): 19-44.

Matte, J. A., Reuss, R. M. (1989b). A Field Validation Study on the Quadri-Zone Comparison Technique. *Polygraph*, 18(4): 187-202.

Nelson, R. Handler, M. (2015). Statistical Reference Distributions for Comparison Question Polygraph. *Polygraph*, 44(1): 91-114.