Erratum

Rousseau, B., & Ennis, D. M. A Thurstonian model for the dual pair (4IAX) discrimination method. *Perception & Psychophysics*, **63** (6), 1083-1090.

In the final equation in Appendix B on p. 1090, the value -0.8225 is missing a decimal point. The appendix, with the corrected equation, appears below.

APPENDIX B Sample Size Calculation

A general equation to estimate the sample size needed for a method with psychometric function f , given δ , and Type I error and Type II error is (D. M. Ennis, 1993)

$$n = \left[\frac{\Phi^{-1}(\beta) [f(\delta)(1 - f(\delta))]^{1/2} - y}{1/m - f(\delta)} \right]^2$$

where

$$y = \frac{\Phi^{-1}(1 - \alpha) \sqrt{m-1}}{m},$$

and m is the number of decision alternatives.

This equation is derived by solving power Equation 2A for n .

Example:

Let $m = 2$, $\alpha = .05$, $\beta = 0.20$, and $\delta = 1.0$. From Table 1 and Equation 1, $f(\delta) = 0.5733$.

$$y = \frac{\Phi^{-1}(0.95)}{2} = 0.8225$$

$$n = \left[\frac{\Phi^{-1}(0.20) [0.573 * 0.427]^{1/2} - 0.8225}{0.5 - 0.573} \right]^2 = 288.$$

This value can be compared to a required sample size of 228 for the duo-trio method, 198 for the triangular method, 22 for the 2-AFC method, and 15 for the 3-AFC method with the same parameters. Thus at $\delta = 1.0$, as shown on Figure 1, the dual pair method is slightly less powerful than the duo-trio and triangle procedures.