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Dear Stroop User:

Please note that the table numbers noted on page 11 and 12 in the Manual do not match the table numbers for the appropriate tables in the appendices. The table numbers should be corrected to be what is shown in the image on this page. Please use this as reference for obtaining the correct values from the appendices. A new page 11 and 12 can be downloaded from the Stroop webpage at stoeltingco.com/stroop. Sorry for any confusion. Please let us know if you have any questions.

### Figure 1 Calculating Stroop T-Scores

| Scale          | Raw _<br>Score _ | Age/Education<br>Predicted Score | =   | Residual | T-Score    |
|----------------|------------------|----------------------------------|-----|----------|------------|
| Word           |                  | (Table I)                        | _=_ |          |            |
| Color          |                  | (Table I)                        | _=_ |          |            |
| Color-<br>Word |                  | (Table I)                        | =   |          | (Table II) |

# Figure 2

Calculating Interference Scores

| Interference = |             |              |            |  |  |  |  |  |
|----------------|-------------|--------------|------------|--|--|--|--|--|
|                | =           | =            |            |  |  |  |  |  |
| Color-         | Predicted   | Interference | T-Score    |  |  |  |  |  |
| Word           | (Table III) | Raw Score    | (Table IV) |  |  |  |  |  |

 Table 1

 Stroop Score Summary

|                   | Raw                     |                         |                         | Predicted   |   | Residual  |                                 | Interference                      |  |  |  |
|-------------------|-------------------------|-------------------------|-------------------------|---|---|---|---------------------------------|-----------------------------------|--|--|--|
| Score             | Word                    | Color                   | Color-<br>Word          | Word  | Color   | Color-Word  | Word                            | Color                             | Color-Word                                     | Interference<br>Predicted                                    | Interference                                     |
| Source            | #<br>Words<br>read      | #<br>Colors<br>read     | #<br>Colors<br>read     | Table I   | Table I   | Table I   |                                 | Raw-Predict                       | ed   | Table III  |  |
| Calculation       | #<br>read in<br>45 sec. | #<br>read in<br>45 sec. | #<br>read in<br>45 sec. | Consult<br>appropriate<br>education<br>table and<br>age row | Consult<br>appropriate<br>education<br>table and<br>age row | Consult<br>appropriate<br>education<br>table and<br>age row | Word Raw<br>– Word<br>Predicted | Color Raw<br>– Color<br>Predicted | Color-Word<br>Raw –<br>Color-Word<br>Predicted | Consult<br>intersection<br>of Word and<br>Color Raw<br>Score | Color-Word<br>Raw –<br>Predicted<br>Interference |
| T-score<br>source |                         |                         |                         |   |   |   |                                 | Table II                          |  |  | Table IV   |

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In other words, do not consider the months. An individual aged 25 years and 11 months would be 25 years for purposes of scoring here, for example.

 The corresponding score is the Predicted Score. Record this value in the "Predicted Score" column for Word, Color, and Color-Word.

Subtract each of the Predicted Scores from the corresponding Raw Score to yield a Residual Score for each measure (see Figure 1 for recording these numbers). Record this value in the "Residual" column for each measure.

Convert each of the Residual Scores into T-scores (mean = 50, standard deviation = 10) using Table II in Appendix A. See the Technical Chapter for information about how these scores and tables were generated. All interpretive strategies are based on these T-scores rather than the Raw Scores.

#### Figure 1

Calculating Stroop T-Scores

| Scale          | Raw<br>Score | Age/Education<br>Predicted Score | = | Residual | T-Score    |
|----------------|--------------|----------------------------------|---|----------|------------|
| Word           |              | (Table I)                        |   |          |            |
| Color          |              | (Table I)                        |   |          |            |
| Color-<br>Word |              | (Table I)                        |   |          | (Table II) |

### Interference T-Score

The Interference Raw Score is calculated by subtracting the Performance Predicted Color-Word score from the Actual Raw Color-Word score (not the T-Score; see Figure 2). Note that the Performance Predicted Color-Word Score is not the same as the Age/Education Color-Word Predicted Score. The Age/Education Color-Word Predicted Score is a measure of what would be a typical performance by individuals of similar age or education. The Performance Predicted Color-Word Score is a function of the Examinee's performance on the Color and Word tasks. Thus, the Residual and associated T-Score obtained from calculation involving the Age/ Education Color-Word Predicted Score is an external comparison, performance on the incongruent Color-Word task relative to the general population. The Residual and associated T-Score obtained from calculation involving the Performance Predicted Color-Word Score is an internal comparison, performance on the incongruent Color-Word task relative the Examinee's own performance on the congruent Color and Word tasks. See the Interpretation section below for further discussion of the meaning of the different comparisons.

The Performance Predicted Color-Word Score can be determined from Table III of Appendix A by looking at the intersection between the column representing the Raw Color score and the row representing the Raw Word score. It should be noted that Raw Color and Raw Word score column and row values increase in intervals of four (e.g., 2, 6, 10, etc.). This interval for Color and Word Score changes yield approximately integer level precision estimates for Performance Predicted Color-Word Score. In cases where the Raw Color or Word score is between given column or row values, that raw score should be rounded to the nearest given column or row value, with scores exactly in the middle rounded up. For example, a Color Raw Score of 32 is exactly in between 30 and 34, the nearest given values in the Color column headers. This score should be rounded up to 34. As another example, a Word Raw Score of 31 should be rounded to 30, as the closest given Word Raw Score (the intersection of Word Raw Score of 30 and Color Raw Score of 34 should then be examined to obtain the Performance Predicted Color-Word Score, 16 in this case).

### Figure 2

Calculating Interference Scores

| Interference = |                          |                           |                       |  |  |  |  |  |  |  |
|----------------|--------------------------|---------------------------|-----------------------|--|--|--|--|--|--|--|
|                | :                        | =                         |                       |  |  |  |  |  |  |  |
| Color-<br>Word | Predicted<br>(Table III) | Interference<br>Raw Score | T-Score<br>(Table IV) |  |  |  |  |  |  |  |

The Performance Predicted Color-Word Score is then subtracted from the Raw Color-Word Score to generate the Raw Interference Score. This score is converted into a T-score using Table IV of Appendix A (Figure 2).

Interference Raw Scores were found to have a negative linear relationship with age (see Technical Chapter). In other words, as age increased, Interference Raw Scores tended to decrease. To account for this relationship and for T-Scores to more accurately reflect a comparison of individual performance against similar-aged peers, within the limitations of a paper-based conversion table, models were constructed to determine the optimal structure of conversion tables. The results suggested that age 68 was the optimal breakpoint for the model. Thus, two T-Score tables were

constructed using scores from individuals below age 68 and those at or above 68. Consult the appropriate table, based on the Examinee's age and Interference Raw Score.

The mean value of the Raw Interference score is close to 0.0, with an SD of 10.0 (see actual values in Technical Chapter). There is a lower mean value for those at least age 68 (M = -6.92, SD = 6.92).

# **Completing Scoring**

That concludes the scoring procedures. Upon completion you should have the following raw, calculated, and standardized scores in Table 1. The next step is to interpret the results, presented in the Interpretation chapter that follows.

| Table <sup>•</sup> | 1 |
|--------------------|---|
|--------------------|---|

| Stroop Score | Summary |
|--------------|---------|
|--------------|---------|

|                   |                         | Raw                     |                         | Predicted Residual  |   |   | Interference                    |                                   |  |  |  |
|-------------------|-------------------------|-------------------------|-------------------------|---|---|---|---------------------------------|-----------------------------------|--|--|--|
| Score             | Word                    | Color                   | Color-<br>Word          | Word  | Color   | Color-Word  | Word                            | Color                             | Color-Word                                     | Interference<br>Predicted                                    | Interference                                     |
| Source            | #<br>Words<br>read      | #<br>Colors<br>read     | #<br>Colors<br>read     | Table I   | Table I   | Table I   | Raw-Predicted                   |                                   | Table III                                      |  |  |
| Calculation       | #<br>read in<br>45 sec. | #<br>read in<br>45 sec. | #<br>read in<br>45 sec. | Consult<br>appropriate<br>education<br>table and<br>age row | Consult<br>appropriate<br>education<br>table and<br>age row | Consult<br>appropriate<br>education<br>table and<br>age row | Word Raw<br>– Word<br>Predicted | Color Raw<br>– Color<br>Predicted | Color-Word<br>Raw –<br>Color-Word<br>Predicted | Consult<br>intersection<br>of Word and<br>Color Raw<br>Score | Color-Word<br>Raw –<br>Predicted<br>Interference |
| T-score<br>source |                         |                         |                         |   |   |   |                                 | Table II                          |  |  | Table IV   |