

The Bender Gestalt II- An Underutilized Tool in Brief Neurological Screening

Michael F. Shaughnessy

Eastern New Mexico University

Portales, New Mexico

Abstract

Although the Bender Gestalt has a long history of use in psychological and neurological assessment, evaluation and screening, it's recent revision has received less attention. This paper provides a cursory overview of the revised Bender Gestalt, discusses the revisions, and proves some information as to its current use and discusses the need for more empirical research with different populations. It is hoped that this paper will sensitize readers to the use of this revised instrument.

The Bender Gestalt is a neurological, perceptual, developmental, personality and visual motor test which was developed by Laretta Bender many years ago. There has been much research regarding its use, with a wide variety of populations and a wide variety of uses. The original Bender Gestalt was comprised of 9 cards shown one at a time, and under no time constraints. The examiner would present the cards one at a time, observing behavior and approach of the subject, allowing the subject to erase if they so desired, and allowing the subject to approach the task in whatever manner or fashion they wished. In general an 8 and one half sheet of paper was used, and a number two lead pencil was provided.

Max Wertheimer, back in 1923 established some of the perceptual principles regarding this test and Laretta Bender, a psychiatrist wrote about the clinical use of this test back in 1938.

There were a number of different scoring systems utilized- and practitioners tended toward a system which they found preferable, or one in which they were trained. Elizabeth Koppitz developed one known scoring system, and other scoring systems followed. Hutt (1985) developed another system which some find preferable.

Some clinicians simply observed clients, took copious notes, and observed their process and procedures in terms of reproducing the design and tendencies, and how they approached the task, and formulated some hypotheses about the personality of the subject, the developmental or perceptual motor skills of the client or the overall thinking , organization and functioning of the individual.

The Bender Gestalt is often seen as a personality, developmental and projective test. As such, clinicians often needed to have a great deal of clinical acumen and experience with the test. Supervision and feedback from a skilled clinician would certainly assist in the development of learners skills.

Often a Bender Gestalt protocol would lend a great deal of information regarding the client, and

validated one's perceptions. In other instances, the Bender was administered to assess recovery from an accident or head injury. The Bender-Gestalt is one of the most frequently utilized tests in the realm of psychology and neurology. Other tests such as the VMI (Visual Motor Integration) utilize some of the shapes of the Bender, but their format is somewhat different- the client/subject/student is asked to reproduce the figures directly below in a structured box like fashion. Some clinicians utilize both tests to ascertain how well a client performs under a loose unstructured situation, as well as in a more structured situation in that the VMI provides more structure in terms of asking clients to reproduce the designs in a structured "box like" format.

A Cursory Overview of Past and Present Research

There seems to be some contemporary usage of the Bender Gestalt II in the realm of vocational rehabilitation (Donoso, Hernandez, & Horin, 2010) and with infants that have been born pre-term (Bohm, Lundequist, Smedler, 2010) exploring their visual motor skills and abilities and executive functions, (long term planning) and further the Bender has been employed in forensic use (Lees-Haley, Smith, Williams and Dunn, 1996) and with the elderly in terms of dementia and other related disorders (Murayama, Iseki, Yamamoto, Kimura, Eto, & Arai (2007) and there has been some minimal research with the Bender Visual motor Gestalt test in the realm of adolescence-which examined the relationships between the Tanner stages and visual motor development (Keppeke, Cintra, & Schoen, 2013) very little empirical research has been conducted utilizing the newly revised Bender in the realm of neurological screening. This may be due to several factors. It does take a certain amount of time for practitioners to become familiar or even learn about new tests. There may be some fear or apprehension about the validity and reliability and appropriateness of use of a new test. Thus, there are challenges facing any new test.

McDonald, Volker, Lopata, Toomey, Thomeer, Lee, Lipinski, Dua, Schiavo, Bain and Nelson (2016) Utilized both the Bender Gestalt II and the VMI –VI in terms of identifying what they have termed HFASD (High Functioning Autistic Spectrum Disorder) and examined their results to average adolescents and youth and typically developing youth and HFASD children.

Volker, and his co-workers (2010) utilized the Bender Gestalt II and VMI V in their research, examining groups of typical or average children and youth with high functioning autism spectrum disorders. Bozorgpour, Rahimi and Mohamadi (2016) employed the Bender Gestalt II as part of a diagnostic process aiding in the differential diagnosis of specifically, depressed patients, brain damaged and lastly, average or "normal" subjects. The results of thirty major depressive patients were evaluated next to 30 brain damaged individuals and 30 normal, average subjects. The results of this specific research seemed to indicate that the BGT-II could fairly accurately differentiate the patient groups, from the normal individuals or subjects. Normal subjects actually performed better in all three aspects of the Bender Gestalt II-- copying, recall and perceptual/motor phases.

Piotrowski (2016) has succinctly reviewed 30 specific studies employing the Bender Gestalt II worldwide. Piotrowski specifically indicates that the Bender Gestalt test is "used moderately in neuropsychological assessment" (p. 73) It has further been predominately been employed by school

psychologists as a psychoeducational measure. There has been some research on the Bender in various Spanish speaking countries. For example, Merino (2012) examined the reliability of the second version of the Bender Gestalt using an independent sample of scorers. Merino and Allen (2013) looked at the construct validity of the second version of the Bender Gestalt Test and issues involving inter-scorer reliability. Merino and Allen (2014) conducted an item analysis of the revised Bender Gestalt and lastly Merino, Calderon and Manzanares (2016) conducted an inter-scorer agreement and explored consistency of scoring issues.

85

THE BENDER GESTALT II

87

The Bender Gestalt was recently revised under the leadership of Gary Brannigan (Brannigan and Shaughnessy, 2016) and Scott Decker.

Currently, there are 13 designs employed for children below 8 years of age and 12 for individuals 8 years of age and older. There are two supplementary tests, which are fairly easy to administer in a brief period of time.

In addition, the newly revised Bender Gestalt-II has an additional Perception Test which contains a 10 prompts in a box on the left hand side of the paper and the student/client/patient is asked to indicate which design best matches the prompt in the left box.

There is also a Motor Test which asks the subject to draw a line between two points. A sample is provided and there are 4 types of designs with 3 increasingly smaller versions of each design. Fine motor coordination is obviously being assessed as well as perceptual skills. The subject is asked not to lift the pencil, not to erase and not to tilt the paper when trying to accomplish the task.

There is an observation form which allows the clinician to make notes about the physical traits or characteristics of the subject, make notes and record test taking observations and make timing notes.

There is an optional recall portion of the test also. A total raw score, a standard score and a t-score and a percentile rank are procured.

Obviously, the skilled clinician will be making behavioral observations as to the subject's approach to the task. A competent clinician will note squinting, or a rushed, hurried approach to the task. In other instances, when lethargy is observed, this will be documented. On occasion, a rigid approach to the task will be seen, but on occasion, a subject will draw a box around each design, perhaps attempting to organize his or her world. Some subjects may place a number adjacent to each design or even make specific comments about a particular design.

All of these behavioral observations can be telling and revealing and provide some insight into the patient's view of the world-or a client's concerns. Some individuals may rush in an attempt to complete the task as rapidly as possible, and others may manifest perfectionistic tendencies, checking and re-checking the number of dots or circles, for example.

The Bender Gestalt II is a fast, efficient screening tool for neurological assessment, particularly if the

clinician has prior experience working with individuals who have sustained a head injury, specifically to the back of the head, but also in other areas. The Bender Gestalt II can also provide support and substantiation for a diagnosis of intellectual disability and learning disabilities.

The manual (Brannigan, & Decker, 2003a) contains a plethora of useful information including information regarding test design and development, administration and scoring procedures, standardization and norming, technical properties including validity studies, and a section on the interpretation of test scores as well as test behavior.

The manual allows the administrator to procure standard scores, percentile ranks and 95 % confidence intervals and provides classification labels. Most importantly for the beginning clinician, there is an appendix which is quite helpful in scoring the Bender-Gestalt II- There are global scoring criteria and ample examples of reproductions that can receive no points, 1 point, 2,3, or 4 points for “nearly perfect”. A cursory overview of the need for the test as well as the process of revision can be found in Brannigan & Decker (2006) for those interested in an in depth review. A section of the manual is devoted to discussions of “clinical and special populations”, such as specific learning disabilities, attention deficit hyperactivity disorder, autism, serious emotional disturbances, giftedness, Alzheimer’s and mental retardation (the manual was published in 2003, when the term “mental retardation” was still in use. It will obviously be replaced with intellectually deficient in future revisions). There is certainly a need for additional research with the Bender Gestalt II-perhaps replicating many of the studies conducted with the original Bender Gestalt, and some studied with other populations of interest. Since there have been additional cards added to the Bender Gestalt II, we are able to work with younger populations and provide an earlier “basal” and the additional more difficult cards, (helping with an additional “ceiling”) enable us to examine the skills of gifted or highly developed children.

Summary and Conclusions

This paper has provided a brief overview of one of the most frequently used tests in psychology- the Bender Gestalt, and has attempted to introduce the reader to the most recent revision of this test and highlight and underline its usefulness in neurological screening, as well as in other areas such as visual motor and perceptual development. Currently there is a very small realm of research studies being investigated and there has been little cross cultural research done with other ethnic and racial and cultural groups.

REFERENCES

- Allen, R.A. & Decker, S.L. (2008) Utility of the Bender Gestalt-Second Edition in the assessment of Attention Deficit Hyperactivity Disorder Perceptual and Motor Skills. 107 (3) 663-75 DOI: 10.2466/pms.107 3.663-675.
- Bohm, B. Lundequist, A., & Smedler, A. (2010). Visual motor and executive functions in children born preterm: The Bender Visual Motor Test revisited. *Scandinavian Journal of Psychology*, 51 (5), 376-384.

155 Bozorgpour, F.A., Rahimi, C. & Mohamadi, N. (2016) Utility of Bender Gestalt Test II for differential
156 diagnosis of major depressive patients, brain damaged and normal subjects. *International Journal of*
157 *Behavioral Science*. 10, 4, 151-155.

158 Brannigan, G.G., & Decker, S.L. (2003a) *Bender Gestalt II Examiner's Manual* Itasca, IL: Riverside
159 Publishing

160 Brannigan, G.G. & Decker, S.L. (2003b) *Bender Visual Motor Gestalt Test- Second Edition*, Itasca, IL.
161 Riverside Publishing

162 Brannigan, G.G. & Decker, S.L. (2006) The Bender Gestalt II. *American Journal of Orthopsychiatry*.
163 76,1,10-12.

164 Brannigan, G.G. & Shaughnessy, M.F. (2013) An Interview with Gary Brannigan: Revising the Bender
165 Gestalt Test *North American Journal of Psychology* 15,2, pp.257-265

166 Decker, S.L. Allen, R., & Choca, J.P. (2006) Construct validity of the Bender Gestalt II: comparison with
167 Wechsler Intelligence Scale for Children III Perceptual and Motor Skills 102 (1) 133-41 doi :
168 10.2466/pms.102.1.133-141

169 Decker, S.L., Englund, J.A., Carboni, J.A. & Brooks, J.H. (2011) Cognitive and developmental
170 influences in visual motor skills in young children. *Psychological Assessment* 23, (4) 1010-6 doi:
171 10.1037/a0024079 Epub 2011 Jun 27

172 Donoso, O.A., Hernandez, B., & Horin, E.V. (2010) use of psychological tests within vocational
173 rehabilitation. *Journal of Vocational Rehabilitation*, 32, 191-200.

174 Hutt, M.L.(1985) *The Hutt adaptation of the Bender Gestalt Test (4th Ed)* New York : Grune &
175 Stratton

176 Keppeke, L., Cintra, I., & Schoen, T.H. (2013) Bender Visual Motor Gestalt Test in adolescents:
177 Relationship between visual motor development and the Tanner stages. *Perceptual and Motor Skills*,
178 117, 257-276.

179 McDonald, C.A., Volker, M.A., Lopata, C., Toomey, C.A., Thomeer, M.L., Lee G.K. , Lipinski, A.M., Dua,
180 E.H., Schiavo, A.M., Bain, F., and Nelson, A.T. (2014) VMI-VI and BG-II KOPPITZ-2 for Youth with
181 HFASDs and Typical Youth. *Journal of Psychoeducational Assessment*. 32(5) 379–389

182 Nasab, T.R. , Salehi, I., Kafi, M., Rezaei, S. (2014) The validity, diagnostic value and replicability of
183 Bender Visual-Motor Gestalt Test in traumatic brain injury patients. *Hormozgan Medical Journal*
184 18,3, Available from:
185 [https://www.researchgate.net/publication/269875058_The_validity_diagnostic_value_and_replicabil](https://www.researchgate.net/publication/269875058_The_validity_diagnostic_value_and_replicability_of_Bender_Visual-Motor_Gestalt_Test_in_traumatic_brain_injury_patients)
186 [ity_of_Bender_Visual-Motor_Gestalt_Test_in_traumatic_brain_injury_patients](https://www.researchgate.net/publication/269875058_The_validity_diagnostic_value_and_replicability_of_Bender_Visual-Motor_Gestalt_Test_in_traumatic_brain_injury_patients) [accessed Jan 10
187 2018].

188 Merino, C. (2012). Confiabilidad en el Test Gestaltico de Bender-2da version, en una muestra
189 independiente de calificadores [Reliability in the Bender Gestalt Test-2nd version, in an independent
190 sample of scorers]. *Revista de Investigacion Educativa*, 30(1), 223-234

191 Merino, C. & Allen, R.A. (2013) Efectos de la confiabilidad intercalificadores sobre la validez de
192 constructo del Test Gestaltico de Bender, 2da version [Effects of inter-scorer reliability on the
193 construct validity of the Bender Gestalt Test, 2nd version]. *Interdisciplinaria*, 30(2), 253-264

194 Merino, C. & Allen, R.A. (2014). Analisis de items del Nuevo Test Gestaltic Visomotor de Bender 2 ds
 195 version [Item analysis of the new Bender Gestalt Visomotor Test, 2ns version]. Apuntes de
 196 Psicologia, 32, 49-56

197 Merino, C. Calderon, G., & Manzanares, E. (2016) Estudio comparative del acuerdo y consistencia
 198 intercalificadores en el Test Gestaltic Visomotor de Bender 2ds edicion[Comparative study of the
 199 inter-scorer agreement and consistency in the Bender Gestalt Visomotor Test 2nd Edition]. Revista
 200 Latinoamericana de Psicologia, 48, 175-182

201 Piotrowski, C. (2016) Bender Gestalt Test usage worldwide: A Review of 30 practice based studies.
 202 Journal of Projective Psychology and Mental Health 23, 73-81.

203

204 Volker, M.A., Lopata, C., Vujnovik, R.K. Smerback, A.M. Toomey, J.A. Rodgers, J.D. ,.....Thomeer, M.L
 205 (2010) Comparison of the Bender Gestalt –II and VMI-V in samples of typical children and children
 206 with high-functioning autism spectrum disorders. Journal of Psychoeducational Assessment. 28,
 207 187-200