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Unlocking ADHD, Dyslexia, Autism and More!

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Unlocking Learning Potential

December 2010 and January 2011

This issue is a combination of December and January because we have been very busy getting our new e-commerce website up and running. We are getting close and hope to publish it before the end of the year. When we do publish it and transfer the domain name from one host to another, it will be down for 24-48 hours. If you try it and it is down, be encouraged that within a day or so it will be available and even better than now. Look for the **NEW WEBSITE SOON:** www.centerforneurodevelopment.com

In this issue: What's Happening at the Center?

What we do at the Center?

New Book Available this month: Rounding the Bases: Chris Learns to Read

Featured Article: Reading by the Colors – a Book Review by Maggie Dail

What's Happening at the Center?

Our *free introductory seminar* usually occurs on the 2nd Monday of the Month at 6:00 p.m. We are changing the locations to 8323 95th St SW. (**New Location**). We are available to do these seminars at your location and to your group. Contact us for details. Future dates:

January 24 (4th Monday)

February 14 (2nd Monday)

March 14 (2nd Monday)

Those who attend may choose a number of options including:

Neurodevelopmental Screenings – up to 30 minutes; \$40.00

- Neurodevelopmental Screening – (auditory and visual processing; dominance; gross motor)

- Attend the 2nd Monday of the month Free Introduction to the Neurodevelopmental approach.
- Follow-up Seminar for all participating families – to explain results of screening and mini-plan of action.
- Mini-Plan of Action – about 30 minutes of daily activities; for those who follow through a minimum of 80%; reporting every month and upgrade to another of the non-test assessment plus or neurodevelopmental evaluation administered by our resident neurodevelopmentalist within 6 months, they will get a \$40.00 discount on the upgraded service.

Brain Development and Learning – coming again after the first of the year!

Learn how to apply what we know about brain development for learning reading, math and other subjects.

Brain Development and Reading – February 28 at 6:00 p.m.

Brain Development and Math – April 25 at 6:00 p.m.

Brain Development and Other Subjects – May 23 at 6:00 p.m.

What do we do at the Center for Neuro Development?

1. FREE information regarding the neurodevelopmental approach to unlocking learning challenges in the following ways:
 - a. Website with links and articles: www.centerforneurodevelopment.com.
 - b. Free monthly e-newsletter, *Unlocking Learning Potential*.
 - c. Free monthly informational seminar – 2nd Monday of the month. See above.
 - d. Occasional workshops on *Brain Development and Learning*. See dates above for the next series.
2. Conduct evaluations / assessments – finding missing pieces in development.
3. Design individual neurodevelopmental plans (with complete evaluation), mini-plans (with non-test assessments plus) and screenings plans (with screenings).
4. Teach parents how to implement these plans to do at home; implement the plans for the parents in the Center or a combination of the two.
5. Sell materials useful for students on plans, homeschool curriculum and Christian books. www.centerforneurodevelopment.com
6. Provide other services for independent homeschoolers and Academy Northwest students: www.homeschoolhelps.com; www.academynorthwest.net.

We are now enrolling for winter classes and scheduling for homeschool testing, Braining Training / Individual ANW credits - and neurodevelopmental

evaluations. Contact us regarding our classes or look on our website: www.homeschoolhelps.com

We are concentrating on the subject of Reading in our newsletter for a while. In 2006, the first edition of our book came out: *Getting to First Base: Chris Struggles to Read*. Any day now, the second edition will be available. This second edition has a new title and additional Bonus material for parents. Watch for *Rounding the Bases: Chris Learns to Read*. While our supplies last of the first edition, the clearance price is only \$10.00. Once the new edition is out owners of the first edition may request the additional Bonus material by e-mail. To get your copy of *Getting to First Base: Chris Struggles to Read*, contact us: orders@specialhelps.com or (253) 581-1588

Reading By The Colors
Overcoming Dyslexia and Other Reading Disabilities
Through the Irlen Method
By Helen Irlen
Avery Publishing Group Inc.
1991

A Book Review by Maggie Dail, M.D. CND

One of my jobs, as a neurodevelopmentalist, is to research what others are doing to address the issues that my clients face. This issue's article is a review of the book that presents the Irlen Method. Since we, as neurodevelopmentalists, seek to look at the whole person, we want to include in our arsenal, methods that work and are consistent with our approach. Certainly many of my clients struggle with reading and for now we are focusing on reading in our monthly issues of **Unlocking Learning Potential**. For a view of how the neurodevelopmental approach addresses reading difficulties, order your copy of the newly released second edition of our book: *Rounding the Bases, Chris Learns to Read*

Among other things that you will gain by reading the following is some definitions of terms. Diagnoses and labels tend to confuse for a number of reasons. One big reason is that different people use labels differently and also official terms change especially in the realm where labels lead to services. Another reason is that several people with the same diagnosis may have different missing pieces in development. Our approach is to look for missing pieces in development, design Individualized Neurodevelopmental Plans, and teach parents to do these short, frequent activities with their children. When these activities are done consistently, they encourage development and the symptoms disappear. Thus the labels no longer apply. While we do not apply labels, we do need to know what people mean when they use these terms.

Another thing you will learn is about reading and other learning difficulties. You will gain an understanding of how it is for some individuals who struggle to read.

Key Points:

- I. Introduction (Front Matter and Chapters 1-2)
 - A. "Helen Irlen's contribution to the process of reading has made it possible for a special population to receive the gift of clear visual perception. ... This gift of clear vision through the Irlen procedure sets many strugglers free." P. ix
 - B. Kinds of reading problems addressed by the Irlen Method: skipping words or lines, reread lines, losing place, easily distracted while reading, need to take frequent breaks, harder to read the longer you read, eyes get red and watery, reading makes you tired, you blink or

- squint, you prefer dim light, you read close to the page, you use your finger or a marker, you get restless, active or fidgety while reading. P. xi
- C. Helen Irlen calls this Scotopic Sensitivity Syndrome or SSS. “Individuals with SSS perceive the world around them in a distorted way as a result of a sensitivity to certain wavelengths of light.” P. 1
 - D. “Rather, it is a treatment that helps people with SSS by eliminating perceptual distortions, which can be such an obstacle to reading and learning.” P. 5
 - E. Proponents of this method recognize that it will not help everyone. P. 6
 - F. Irlen discovered this cause of reading difficulties and the solution over a period of ten years. She chose adults because they could communicate what their experiences, more motivated and not as likely to be intimidated. P. 9, 16, 17
 - G. Challenges: “...regardless of the time, money, expertise, and effort expended” – learning does not occur for some, the system is unresponsive, some problems are hidden, the system has weaknesses, individuals are mislabeled, standardized tests do not catch everyone etc. p. 9-27 (Chapter 2 Discovery)
- II. What is Scotopic Sensitivity Syndrome? (Chapter 3)
- A. Individuals with SSS:
 1. Experience difficulty processing full spectrum light efficiently.
 2. Experience difficulty dealing with spectral modification of light.
 3. Experience perceptual dysfunction. P. 29
 4. Not a weakness in visual system – vision specialists, optometrists, ophthalmologists will not find SSS.
 5. Not just a reading problem – can affect: academic success, sports performance, driving, musical ability, coordination, self-concepts, energy level, motivation, work production and depth perception. P. 30
 6. Five Components:
 - a. Light sensitivity – some prefer bright light and some dim, can’t sit still while reading, fluorescent lights cause dizziness, sense of agitation, migraine headaches, and night driving difficulties. P. 32-33
 - b. Inadequate background accommodations – “trouble dealing with high contrasts” “The background begins to compete for attention.” “periods, commas and dots disappear” “brightness of page competes with print for attention” “background distortions undermines consistency” p. 35
 - c. Poor print resolution – letters dance, vibrate, pulsate, jiggle, shift, shimmer, move or disappear. Variables include: font size, spacing, font style, amount of print on page. Indicators include: letters and words run together or move, slow reading, errors, omissions, need to reread, difficulty tracking, concentrating, comprehending. P. 39
 - d. Restricted Span of Recognition – tunnel reading, lack of ability to move from line to line to copy, to proofread, to skim or to speed read. Difficulty with spelling due to lack of visual imagery. P. 47
 - e. Lack of sustained attention – frequent breaks needed “For people with SSS, it takes energy and effort to perceive and process the words.” P. 48
 7. Irlen found that the following does not work: remediation, skill building, vision training, diet, sensory integration therapy, drugs She found that colored filters (sheets on page or lenses in glasses) change spectral content of light. P. 57
 8. There may be a genetic cause. P. 57,58 Environmental cause – type of lighting; fluorescent lighting is the worst of all. P. 71
- III. SSS and Reading (Chapter 4)
- A. “Yet, as easy as it seems to learn, reading is an incredibly complex skill, involving a series of written symbols placed together in a predetermined way. You must be able to perceive them properly, decode them, recognize sounds attached to them, and finally apply your language, reasoning, and intellectual abilities to give meaning to those symbols. Not simple at all!” p. 59
 - B. “Reading is the basis for academic success and, in many ways, success in later life.” P. 60
 - C. “Reading is more than learning skills. One must effectively use those skills.” P. 65

- D. Perceptual problems, such as SSS can be an underlying cause for reading difficulties.
 - E. Individuals with perceptual problems can not sustain the reading activity for long periods of time. Practice won't help, instead it makes it worse. P. 67
 - F. "The use of colored overlays, filters, or other aids as treatment for Scotopic Sensitivity Syndrome is not meant to replace reading remediation. Rather, the purpose is to eliminate the perceptual problems that inhibit the learning process. SSS might only be one of several layers contributing to reading problems." P. 74
 - G. Irlen lists a number of methods of teaching reading that will not work IF this underlying cause is not addressed. P. 74-75
- IV. SSS and Learning Disabilities (Chapter 5)
- A. Public Law 94-142, the Education for all Handicapped Children Act of 1975 defines Learning Disabilities as: "Specific disability means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. The term does not include children who have learning problems that are primarily the result of visual, hearing or motor handicaps, of mental retardation, or emotional disturbance, or of environmental, cultural, or economic disadvantage." P. 80
 - B. In 1991, when this book was published learning disabled individuals in the U.S, Great Britain and other countries comprised about 10% of our population. (Not comparable figures but: Approximately 2.8 million students have Specific Learning Disabilities (SLD), making up 51 percent of all individuals receiving special education services under the Individuals with Disabilities Education Act (IDEA) (22nd Annual Report, 2000). http://www.lidaamerica.org/legislative/joint_activities/commonground.asp)
 - C. Some problems in learning disabilities: "difficulty reading, only being able to read portions of the paragraphs, skipping words, reversing or changing the order of letters in a word, unable to tell right from left, trouble recognizing words on paper, problems listening, problems telling time, and a short attention span. There might also be problems in concentration, perception, visual and auditory processing, skills linking perception to movement, orientation in time and space, short-or long-term memory, language skills, and abstract reasoning." P. 81
 - D. "Children with learning disabilities exhibit a great variability in their performance from task to task or in the way they handle the same task from day to day. They excel at some activities and fail miserably at others. Often, skills that seem solid one day are gone the next. It is that inconsistency, the uneven, high-low pattern of their performance, that confuses teachers and parents." P. 81-82
 - E. "The causes of learning disabilities are still in question. Learning disabilities might stem from more than one underlying abnormality." P. 82
 - F. Types of Learning Disabilities
 1. Visual Perceptual – difficulties with reading, writing, copying, keeping numbers in a column, listening, memorizing, talking; inattentive readers; letter reversals, rotated, inverted or confused with others; daydreaming while reading; trouble completing assignments; listening. Many of these problems could be related to SSS. P. 84
 2. Auditory Perceptual – difficulties with listening, picking up auditory information, taking notes, misinterpreting verbal information, tuning out and daydreaming, might have trouble recalling and identifying sounds. P. 84
 3. Memory – difficulties with spelling, math, reading, and other activities that require memory skills. Extended practice may not help. May have trouble learning the alphabet, sight words, spelling and math facts. P. 84
 4. Motor Problems – difficulties copying from the board, or books, taking notes, spelling or taking tests. They may know the information, but have problems writing it; thus they have sloppy writing and may make many errors. "Writing is tiring and laborious." P. 84-85
 5. Hyperactivity / Distractibility – difficulties paying attention, concentrating, listening, sitting still. Cause trouble, are impulsive, easily distracted, daydream, unable to

- complete assignments. Possible factors: environmental and food allergies, auditory attention disorder and SSS. P. 85
6. Dyslexia – difficulty processing sounds and letters, spelling, reading and writing. (more in next chapter) p 85
 - G. Assessing Learning Disabilities – usually assesses at least 2 years below grade level. P. 86
 - H. SSS – “Scotopic Sensitivity Syndrome is not, in and of itself, a learning disability. However, research has indicated that almost half of those who have been diagnosed as having a learning disability have SSS as one component of their learning problem.” P. 87
 - I. “If an individual with a learning disability has SSS, it can affect his or her reading, spelling, math and writing; it can spur distractibility, hyperactivity, and other things. The individual might miss words when copying from a chalkboard or a book, might make math errors because of an inability to keep numbers in columns, and might make sloppy errors because of difficulty keeping writing on a line or drawing letters of equal size. Sometimes writing is too close together; or it can be too large, with unequal spacing. A child’s trouble sitting still or completing or even beginning reading or writing assignments might be because of SSS.” P. 87
 - J. Treatment – “Remember that even when SSS is eliminated, all other problems don’t just go away. Educational interventions though, can be more effective at that point since, for some, a major factor no longer interferes.” P. 92-93
- V. SSS and Dyslexia (Chapter 6)
- A. Word Derivation: Dys = poor or inadequate; lexia = verbal language OR Language difficulties. P. 95
 - B. Common ideas about dyslexia: letter reversals and other confusions; difficulty learning / retaining / communicating information; not being able to read; not being able to read well with little or no reason and no resolution; subset of learning disabilities, but not synonymous; difficulties with social skills and other academics; may affect all language, but not always p. 95-96
 - C. World Federation of Neurology definition: “a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and sociocultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin.” P. 96
 - D. Common problems: “difficulty dealing with letters, symbols, or numbers. Visual processing problems, as well as auditory processing problems...” “difficulty following directions, telling time, or finding places without getting lost.” “ ... memory, coordination, depth perception, and discerning left from right.” “The main visual processing problem show up as incorrect oral reading. The person might omit, distort, or add words. (Sounds like SSS, doesn’t it?) Naturally, that might affect comprehension.” P. 97
 - E. Causes of dyslexia: Nobody knows. “Current research is focused on such possible causes as genetics, physiology, biochemistry, and structural changes in the brain. There are theories that something is wrong with the brain or that certain chemicals are missing.” P. 98
 - F. SSS symptoms overlap dyslexia so eliminating SSS can be a part of treating dyslexia. (The book demonstrates how a person with SSS actually sees the words.)
 - G. Irlen proposes that SSS can be eliminated and then for the rest of dyslexia compensatory strategies should be implemented. “The person needs to accept the limitations of dyslexia and create strategies to deal with them.” P. 104 [The neurodevelopmental approach does not accept this --- we search for the underlying missing piece, stimulate the brain in a specific way with the goal of eliminating the problem. We continually study and research to fulfill that goal.]
- VI. SS and Other Related Problems (Chapter 7) SSS could be the underlying problem for other issues as well. If so, other interventions will not work:
- A. Behavior – Some would rather misbehave than look “dumb.” May be / act: “defiant, act out against authority, or throw temper tantrums... or destructive, verbally or physically aggressive... lie, steal,... antisocial, delinquent...” p. 111

- B. Other Problems: attitude, motivation, self-esteem p. 112 – 115
 - C. Other Difficulties: depth perception (judging distances – driving and personal space problems; bumping into people or things); sports; judging movement, environment (recognizing people far away), coordination, reading music, lining up number for math, handwriting (size relationships, connections) written expression, copying from board or from a book. P. 116-125
- VII. Screening for SSS (Chapter 8)
- A. Referrals for screening come from parents, educators, health professionals, and psychologists
 - B. Screening – the First Stage: SSS is one possible piece to the puzzle of the disability. While there are some who only have this problem, most have two or more contributing factors to their disability.
 - C. “Screening involves obtaining information to determine if SSS is affecting reading and learning. The screeners will be able to know whether the person is scotopic. If there is SSS, the screeners initially will recommend the correct color overlays to reduce the perceptually based problems. By the end of the screening, the screeners will have a good idea whether the individual is a good candidate for additional treatment, which aspects of the person’s reading have the potential to be improved, and which aspects probably are not improvable.” P. 131-132
 - D. When – at different times during the year. A number of factors can affect the screening process. Problems may occur at different times. Or they may not appear until college.
 - E. See an optometrist or ophthalmologist – deal with any vision problems before doing a screening for perceptual difficulties.
 - F. Screening –
 1. Questions – lots of very specific questions: sensory; home, school, work environments; family history (genetic factor); objective performance & subjective reporting; Parents are a part of the screening. [The neurodevelopmental approach also uses the input of parents in the evaluation process.] p. 134-138
 2. Tasks – the screener has the individual do a number of tasks that elicit the symptoms of SSS. Perceptual skills tested are typically present at age 5 or 6 and tend not to change much from that time on. P. 138-139
 3. Overlays – If the first two parts indicate the presence of SSS, the screener proceeds to the third part. The screener uses a wide variety of overlays to see if the individual notices a difference. If a person has never seen print typically, he won’t report that information to someone seeking to help him. Now, with an overlay that removes the barrier, the individual can describe what happens without the overlay. p. 139 Each experience is different. “Remember...The screening will not correct everything for each person who walks in.” p. 140 The individual actually helps the screener find the overlay or combination of overlays that resolve the issue. The individual takes those overlays home to use while reading, testing to see if the results will continue. The overlays should be non-glare.
 - G. Screening results in an idea as to the extent of SSS in the learning difficulties experienced by the individual. SSS may be only a small part of the problem or in some cases, the only problem. Groups:
 1. Some show no sign of SSS or at least no significant signs. Repeat screenings at different times may be helpful.
 2. Some have SSS, but the problem is only a small part of the problem, so no significant improvement is seen.
 3. Others definitely have SSS and using the overlays makes a big difference.
 4. A few appear to have SSS, but the overlays do not resolve the issue. Further testing may be helpful.
 - H. “Positive results from the screening stage of this process indicate that the individual should go for further diagnostic tests and treatment.” Lenses (not glasses which are to correct vision problems) are crafted for these individuals P. 144-145

- VIII. Pinpointing and Treating SSS (Chapter 9)
- A. “Remember that the goal is to filter selectively that part of the color spectrum, and only that small amount of light, that seems to be causing the brain to distort the information it receives.” P. 156
 - B. “Selecting the correct filter color is the most important component of the entire process.” P. 156
 - C. Irlen warns her readers that, Overlay color do no equal filter color. Also, “the color that works best in the filters differs from the one that worked best in the person’s overlays.” Further, “Tinting filters to the color of the overlay might be helpful.” “Use an expert.” P. 157 Further, “Filters alone are not always sufficient.” P. 163 And finally, “Remember that Scotopic Sensitivity Syndrome is rarely round as a problem in isolation.” P. 165
 - D. Irlen includes a number of before and after testimonials on pages 159-163
- IX. Closing Thoughts (Chapters 10, 11 and Back Matter)
- A. Irlen again discusses the different types of individuals that go through the screening and possibly treatment. Some need to go on and resolve other issues before reading is no longer a problem.
 - B. She discusses environmental changes that can help individuals: lighting, paper color, and other modifications (especially in a school atmosphere – but can be applied in a home situation).
 - C. Irlen also discusses the future (from 1991) and the need for research.
 - D. She lists Irlen clinics – only one in some states and foreign countries. (as of 1991) www.irlen.com says: “Certified Irlen Screeners are educators who can do the first test session to determine overlay color. There are thousands of Certified Irlen Screeners in addition to those listed above. To find a Certified Irlen Screener near you, please contact the closest Irlen Diagnostician.”

In some respects Irlen seems to get to the underlying cause, which is what we, as neurodevelopmentalists, seek. While in others, the method seems to accept certain conditions, such as dyslexia, and look for accommodations. In the case of dyslexia, we are not willing to do that.

