

BABO NEWS

Newsletter of the

Baltimore Academy for Behavioral Optometry

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At a board meeting in May, BABO put to paper its Mission Statement, Goals and Objectives.

Mission Statement:

To improve access to the highest quality vision care for the general public by providing quality, understandable, comprehensive behavioral optometric vision care education

Goals:

- To increase access to behavioral vision information
- To elevate the education of optometrists in the practice of behavioral vision care
- To increase the number of optometric offices and personnel practicing behavioral vision care

Objectives:

- To teach behavioral vision care so it is clinically useful in daily practice
- To make every course we teach and all materials we utilize both internally and externally consistent
- To develop high level educational materials and methods to further behavioral vision education

We are trying our best to meet these goals and objectives and to provide you the support you need to practice behaviorally. Having your feedback will help us do our best to support you. Please give Theresa a call with any comments or suggestions as to how we can better serve you.

Visual Space Solid

By: Robert A. Hohendorf, O.D.

In Optometry School, I attempted to read some of the works of A. M. Skeffington Published by the Optometric Extension Program. One of the terms that was new to my education was visual space solid.

On the surface, the term had an image that made some sense; but as usual, I thought the three words together, especially the term solid, was strange. What was he trying to express?

After 25 years in practice, and some of the patient revelations that where verbalized during projected vectographs, it dawned on me what he was trying to say. To share the experience of true high-level binocularity, I have come to describe the visual space solid as “**Everything has its place and it’s in it!**” When the patient is truly experiencing binocularity, this statement has an empathy that is powerful.

In the Behavioral Vision Care course we develop the idea that what we see as reality is a dynamic illusion. I recently read a statement, I liked, that stated, "We keep bumping into reality with our senses." This idea of the perception of space and visual space representation was also recently reinforced in an article passed out at the Conference on Clinical Vision Care July 1999. The article, *Reach Plans in Eye Centered Coordinates*, written by A. P. Batista, et al, appeared in the Journal *Science*, July 9, 1999. The article showed the visual cortex (spatial coordination system) leading the motor system (hand) prior to movement. The author started out to prove proprioceptive and motor cortex would be leading the way. We have described this in the courses as parts of the, where am I, where is it circles. Now we know for sure from pet scans that the visual control is a vital, if not the initial, point of brain activity for movement.

So the concept of spatial brain coordinates representing real space is critical for all movement. The more everything has a place, and we know where that is, adds an order and solidity to our visual spatial perception. Even Bruce Wolf, when asked if he could relate one thought from all he had learned replied, "symmetry, balance, everything in its place."

Consultation Corner

The following question was submitted by Birgitte Freydenborg from Frederiksberg Tekniske Skole in Denmark. Answers are provided by Paul A. Harris, O.D. and Robin D. Lewis, O.D.

Question: There seems to be different ways to perform static retinoscopy (#4). I have talked with several of the teachers at our school and we each seem to have learned slightly different methods. I've checked Borish, Bennett & Rabbetts and some OEP publications, but can't find anywhere in exact steps, what I should be doing. My understanding is that you can do either: (1) Use a large target with +1.50 diopter lenses in front of each eye and scope like this to reveal any hyperopia or the least amount of myopia, by relaxing the accommodative system, or (2) Use one line bigger than their best visual acuity, remove the +1.50 diopter lens on the first eye, scope the other eye with the +1.50 in place. When you scope the second eye then the lens situation is reversed. Please help me understand your views and let me know your preferred way to do the #4 finding.

Answer Dr. Harris: You are very right in your perception that there is no real clear single method for doing retinoscopy. We have modified the basic procedure to give us more insights into how the person actually performs.

On a conceptual basis we view fogging (the use of plus on the eye that is not being scoped) as a non-medicinal form of cycloplegia. Since we want the patient to be more actively involved or "connected" to the distance target, we want them to do this with the possibility that they may be able to see the target clearly. As they select the distance target to be that which they are deriving meaning from, we do not want them fogged. Fogging causes them to go passive and we want to see them to be actively involved in seeing.

Yes, with fogging it is possible in some situations to get more plus or less minus to be revealed. However, the feeling is that this has been artificially produced and is not the type of insight that has lots of use clinically.

Now let's consider the type of target we use for retinoscopy. Since I would like the person to be dynamically and actively involved with the target I want something that is near threshold visual acuity. If the visual acuity is 20/20 (6/6) then 20/30 (6/9) or 20/40 (6/12) is all right to use as a target. In Behavioral Vision Care (BVC) we talked about how poor most of our retinoscopy targets really are. Having some type of dynamic changing target that required sustained attention would be better. How long does a person of average intelligence need to look at 5 letters to know them? A film, television, or

a slide projector where the person was given the controls so that they could change the slide when ready to view another would be best.

I hope this clarifies the procedure. To give an example to be clear here is an example. Let's assume a person who reads 20/20 (6/6) and is about +1.00 on the #7 finding. I use the 20/40 (6/12) line with full room illumination. I start the procedure with plano in each eye. I find my neutral in the right eye with +2.50. I remove my working lens in the right eye leaving + 1.00 in the right eye. I now move over to the left eye. Again, while doing the left eye the right eye has the + 1.00 not the +2.50 which would include the fog. I now find neutral on the left at +2.50. I then take out the + 1.50 working lens and record + 1.00 OU on the number 4 finding.

If I end up with any lens greater than the "rules of throw out", which are related to the refractive finding, then I may come back and re-scope the right eye. Example, if the person has +6.00 refraction with both eyes, I start with nothing in the phoropter. I scope the right eye and get neutral at +7.50. I take out the working lens and leave +6.00 in the right eye while I go do the left. I may then decide to come back to redo the right eye after I have done the left eye. This time I will be scoping the right eye with +6.00 over the left.

Done this way the finding is a dynamic not a static distance retinoscopy. Most of what you will find in the literature is about static retinoscopy. I hope that this answers your questions.

Additional Insights Dr. Lewis: I remember my days as a student quite well. One of the most baffling things for me was the way in which I was taught about retinoscopy. It seemed to be a route to a thing called the *prescription*. This was especially true when it came to the #4 finding (called static retinoscopy). At the time, it seemed to me that the retinoscopy must match the subjective and when it did, the examiner had done a good job of retinoscopy because it agreed with what the patient told me was the clearest lens, and two *tests* had produced consistent data.

My undergraduate experience was in physics. I learned to believe my data and I learned to trust in my ability to observe. As I began to see my own patients, my data and the patients subjective did not always agree well. If what I saw with my retinoscope was correct, either the patient was wrong about his or her own vision or what I understood about the relationship of the retinoscopy findings to the other findings was in error. As time passed, I began to realize that retinoscopy did not depend on other findings for its validity. It was not a measure of the *refraction*, but seemed to be an indicator of what the patient's visual system was doing. It was at this time that I began to be aware that *static* was an unusual word to use to describe what seemed to be a dynamic process. This was true, even though I was still using a streak retinoscope and a plus fogging technique for the #4 finding, both of which tend to obscure a good deal of available information.

John Streff, O.D., one of my mentors, told me that in retinoscopy (and the rest of the exam as well) the examiner brings his or her visual system to bear on the visual system of the patient. This is what all forms of retinoscopy have in common. The patient's response that we observe through retinoscopy evokes an answering response in the examiner. It is possible to observe this response in the examiner even when the examiner has little awareness that it occurs. As each examiner becomes more in tune with their own visual system, they will be increasingly aware of the patient as well. This continues to happen in my case. Each technique of retinoscopy offer's an avenue through which the examiner can gain insight into the vision of a patient. In this sense, it could be said that there is one retinoscopy technique applied at differing distances with differing targets to gain insight into the patient's responses to the differing situations. For example:

- 1) Does the patient remain engaged with the task or let it go (fight or flight)?
- 2) Where does the patient place identification to deal with the target?
- 3) What is the symmetry and stability of the visual response?

I do not believe it is reasonable for a person learning the techniques and the theories of our profession to be asked to learn and understand all of the subtlety of every retinoscopy technique at first. As a clinician becomes more skillful and improves his or her understanding, each probe of the visual system becomes integrated into a developing understanding of the needs for each individual patient. It is interesting to me that Paul and I developed our general approach in isolation from each other, and yet there is almost no difference in the way we do retinoscopy. Distance retinoscopy provides the starting point of the *analytical* sequence we both use. It is an anchor point for me.

I believe the best way to begin to learn retinoscopy is as a part of the exam sequence, related to the other findings. Paul described an excellent approach in his note to you. Both he and I use it. With retinoscopy seen in this perspective, the entire examination sequence becomes a natural way of looking at where the patient is and developing an understanding of where they can be.

Mind Candy

By: Robin Lewis, O.D.

As we choose to define vision we also define our scope of practice. This in turn sets out the responsibility we have to our patients and colleagues. If vision is defined as optically clear sight and a physically intact eyeball, the primary emphasis of our examination and studies must be based there. That would be nice, because the amount of information needed to meet that definition of vision is pretty basic. Regrettably, the benefit to the patients we serve is also limited by the definition of vision we choose. It is important to remember that in a profession such as optometry we have only our benefit to the public to sell, so that when we limit our scope we also limit our viability in the market place. This is especially important with the pressures of the current medical financial climate.

If vision is defined as "The deriving of meaning and directing of action as triggered by light", our responsibility and thus our value to the public is much greater. This is because of the increased quality of life that behavioral vision care can offer each patient.

In my practice, which is a general practice in a suburban area, we see many more persons who complain of headache than we see complain red eye. The ratio is easily more than ten to one. We find that a great deal of red eye is treated by a phone call to a physician's assistant who calls in a prescription for various drops that may or may not be best for that patient. We only see them if the problem persists and the gatekeeper has not already made the referral to the ophthalmologist. Patients and physicians are generally satisfied with this approach. The doctor gets paid, the patient doesn't have to hassle with going to the doctor's office, and the red eye usually goes away (whether the drops have much to do with it is open to question.) The point is that both sides of the interaction are pleased with the outcome and there is little push to change the situation, although we are well familiar with the hazards of such an approach.

Most physicians are unsuccessful in dealing with headache. In many cases of headache associated with school or the workplace, a simple plus lens prescription will relieve a great deal of the distress suffered by the patient. This is also true in many cases of migraine where visual distress is a mitigating factor. In spite of this, it is uncommon for us to see patients who have had the benefit of a simple plus lens prescription before they see us.

We, as optometrists practicing from a behavioral philosophy, have the opportunity to offer much more than eye drops and compensating lenses. We can offer our patients increased productivity and comfort.