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THE CLASSIC “DONDERS PUSH UP” TEST, GIVES ME INSIGHT INTO ONE’S FOCUS FUNCTIONING

When I was in optometry school at Pennsylvania College of Optometry (P.C.O.), we learned a number of ways of determining one’s “**amplitude of accommodation.**” One way was the “**Donders Push Up**” test. It was basically a mechanical way of determining one’s amount of near focus ability that they had available to use at their age.

The basic procedure is to present some small letters at a near distance, and move those letters toward the patient, until they report the first blur. This blur distance is then converted into “diopters of accommodation.” I say it was **basically** “mechanical” because the doctor mainly viewed this as a set point of **maximum near point of clarity** and equated it to the age of the patient to see if it matched known “**age norms.**” Little “**Functional**” or “**Behavioral**” aspects were brought into it, as we Developmental Behavioral Optometrists might derive from **observing** different **responses, comments, body tensions,** etc., on the part of the patient while they were experiencing the “**test.**”

Years ago, **I modified** the “**instructional set**” of the “test” that I learned at P.C.O. to better fit my “**model of vision.**” I have preformed **my modified procedure** on **every patient** I examine in “the chair,” not just those whom might be candidates for Vision Therapy. The procedure is as follows:

I test the patient **monocularly** and **binocularly**. I usually do monocular first. I have the patient **hold** a near point card **in their hands**. I cover one of their eyes and they are to look at a small word on the near point card. My instructional set is: "I want you to look at the word 'telephone,' is it clear? 'Yes' says the patient. Now, I want you to bring the card **closer** to your eye **SLOWLY**, keeping the word 'telephone' **CLEAR**. At ANY time if the word 'telephone' **BLURS**, **EVEN FOR AN INSTANT**, I want you to **STOP** moving the card, and **SAY 'BLUR'**, then wait until the word **CLEAR** AGAIN. When it is **again clear**, **CONTINUE MOVING** the card closer to you **UNTIL IT BLURS AGAIN**." I have them continue doing this until they are **UNABLE** to clear the word 'telephone,' and I **note this distance**. For myself, the **most important observations** of the procedure are **HOW MANY TIMES** they have to **STOP MOVING THE CARD** and the **DISTANCES** of the **STOPS**. I also notice **tension states** of their eyes, face, body, etc., any comments from them of feeling excessive **eye strain**, feelings of **discomfort**, etc.

To me, the "**norm**" should be **NO STOPPING** or maybe a **ONE TIME** stop for those well under the age of 40. Many of the children that I see with Learning Related Vision Problems (**LRVP**) make a **NUMBER of STOPS** with one eye and usually **EACH EYE** when **MONOCULARLY** tested. Sometimes one eye makes **more stops** than the other. This gives me information about possible binocular imbalances in their focusing processing and different methods to use if they need a Vision Therapy Program. **Amblyopic** and **Strabismus** cases **ALMOST ALWAYS SHOW MANY MORE STOPS** in the affected eye of course.

I want **THEM** to **hold the card** as they do this procedure, to closely **mimic their physical reality** when they interact with near vision tasks. We are trying to grasp how **THEY** have constructed **THEIR VISUAL WORLD** to match their own unique being.

For some patients (ex.LRVP), I add another modification. At the near point that they are **UNABLE to clear the word “telephone”** anymore, I have them **QUICKLY** look up at the distant acuity chart. They are to say the word **“Now”** the first instant that the distant letters are **CLEAR**. I usually use a line of letters that is **one line above** (bigger) than their entering visual acuity measurement, for them to clear at distance. Their response gives me information about their **“accommodative facility”**. I like them to be able to clear the distant letters just a **Moment** after looking up at them.

I hope this paper has been of some value to you. If it only triggers some thoughts as applied to your own “model of vision,” then I have accomplished my task.

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