THINGS WE ALWAYS KNEW FOR SURE

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... we human beings spend our entire lives constructing theories about how the world works, and then reconstructing them in light of new evidence.

Alfie Kohn The Homework Myth (Da Capo Press, 2006)

FROM AN EMAIL ABOUT THE DEM

"I was surprised by how many cases that I assumed was oculomotor dysfunction that was in fact due to poor automaticity. You can see how the management would differ."

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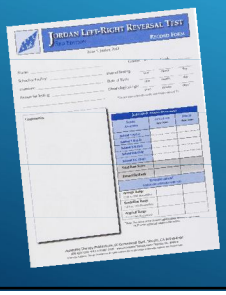

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A GOOD QUESTION

When a particular behavior or pattern of behavior has significant prevalence in a species or societal group, it is reasonable to ask what benefit that trait or condition confers on the group either as a whole, or on individuals within the group.

Why is it we go through the process of testing and categorizing as part of our treatment?

GOOD QUESTIONS

- The answers to her questions probably lie in how we come to organize and direct our behavior.
- The visual process is a pervasive aspect of behavior.
- When we look at behavior, it is reasonable to say we are looking at expressive vision—the visual process becoming visible through the behavior of the individual.

BINOCULAR VISUAL PROCESSING

- Binocular visual processing has long been thought to be developed from a gradual summing of the two halves of the system, especially sensory input from the two eyes.
- Little was said about how or why binocular vision came to exist in the first place and what benefit it confers on the organism.
- The basic assumptions are not clear, but it seems to be thought that we develop from not being binocular to being binocular and that should development go awry, binocularity may fail to develop.

BINOCULAR VISUAL PROCESSING

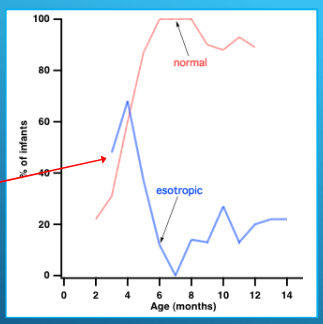
- This assumption is where ideas like the critical period have their roots.
- Another idea closely tied to the critical period is that of amblyogenic conditions, often referring to a refractive difference between the two eyes, or a significant amount of hyperopia leading to misalignment.
- It is often assumed that if the optics of the two eyes are different enough, or if the eyes are not aligned then binocularity does not develop.

BINOCULAR VISUAL PROCESSING

- While the skill with which we use the binocular visual process does develop, binocular processing is an innate feature of the developing human being.
- If the human being is a visual being, then binocularity is a fundamental property of thought rather than a feature specific to the eyes.
- We are born with a binocular brain and we must then learn to use it.

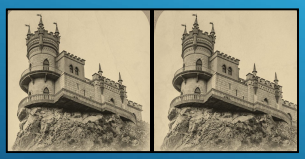
INNATE QUALITY

- Research has shown that infantile esotropes will respond to stereoptical stimuli when optically aligned.
- It appears that infantile esotropes may exhibit stereopsis earlier than those who develop normal binocular vision.



BINOCULAR VISUAL PROCESSING

- Fundamental to our ability to think and develop, is the ability to compare likenesses and differences.
- Stereopsis requires that the views be somewhat different.
- The views must also be reasonably similar.



BINOCULAR VISUAL PROCESSING

- Stereopsis requires being able to simultaneously appreciate differences in the context of the similarities.
- The way in which we deal with the differences is the basis of the breadth, volume, and quality of our depth of view.

INTELLECTUAL STEREOPSIS

As a pervasive aspect of human behavior, the principles of stereopsis hold true on both an individual and a collegial basis.

INTELLECTUAL STEREOPSIS

Optometrists have competing views that we must organize in order maintain the depth and breath of our vision.

Depending on the circumstance, one view or another may predominate, but too much emphasis on one view tends to distort or limit the outcome, especially if the emphasis becomes habitual.

TWO VIEWS

Our views must exist in harmony and balance to provide and preserve a stable organization.

TWO VIEWS

Most optometrists first learn an institutional view of optometry and they must prove they both have, and comply with, that view through their formal education, culminating with the passage of boards and graduation.

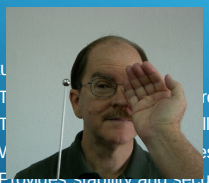
TWO VIEWS

- Often, it is during the externship process, that it begins to be clear that there is another view.
- The clinical view is not exactly the same as the institutional view.
- There are “real” answers and “board” answers.

STEREOPSIS

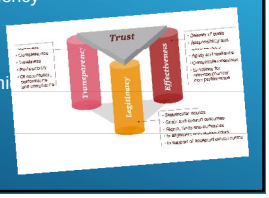
- Both the clinical view and the institutional view offer important perspectives.
- An over emphasis on either view tends to lead to less effective and less stable outcomes.
- We can become amblyopic or strabismic in our understandings due to a lack of meaningful experience.

TWO VIEWS



Institu
- T rent status
- T lly or institutionally based
- V s of central tendency
- Provides stability and security

Clinical
- Tends to be inventive, independent, dynami
- Focused on the individual outcome



TWO VIEWS

- The institutional view and the clinical view each have great value.
- Together, they can provide a depth of understanding that neither is capable of achieving alone.
- When out of balance, the results can be limited and/or erratic.

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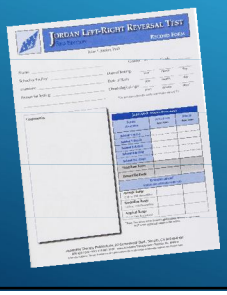

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- The institutional view is that we provide a diagnosis which then leads to matching treatment.
- The diagnosis is provided through a set of standardized measurements and so if a patient is helped the measures must have "improved".
- The patient's needs tend to be converted to standardized measurements.

e.g., phorias, refractive states, ranges of vergence, DEM, etc.

- Treatment is then designed and applied designed to directly impact the areas of performance found deficient using standard measures.
- After a period of treatment, the suspect area of performance is re-evaluated for change toward a more desired state.
- e.g., Vergence ranges have increased, accommodative facility and range have increased, the DEM and Jordan have normalized, etc.
- Most people show improved scores following VT and with the use of appropriate lenses.

OUTCOME MEASURES

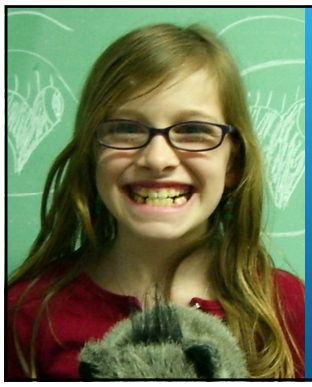
- VT works. People also demonstrate changed lives.
- This is because VT and lenses will almost always provide significant improvement in measures of visual ability due to improved visual skill gained during VT and the use of lenses that balance the visual demand.
- Our patient may read better, not necessarily because we developed increased ranges of accommodation through accommodative therapy, but more likely because the development of improved ranges and facility of accommodation are a demonstration of improved visual skill.

OUTCOME MEASURES

- We begin our clinical careers providing care from an institutional basis. This basis is passed on from the cumulative history of the profession.
- We begin with relatively easily measured measures of ability that have shown some correspondence to performance.

OUTCOME MEASURES

- We develop our own personal view through unique experiences with a series of individual patients. While this experience is cumulative as well, it remains individual in character.
- As time goes on, there is a growing depth of understanding due in part to the differences between the institutional view and the clinical experience of the practitioner.



CLINICAL DEVELOPMENT

- We don't forget our clinical training.
- It gains additional relevance as part of the ground that gives meaning to the observations made in practice with our patients.

AN ANSWER TO THE QUESTION

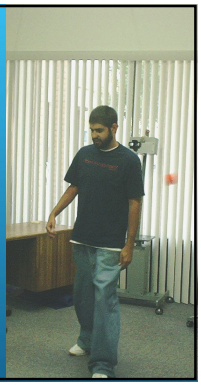
Without a stable institutional background, it is difficult to develop a stable understanding based on the similarities and differences between the views.

Stereopsis is the ability to simultaneously detect and resolve similarities and differences in views.

Tests and measures, especially those with reference to our common backgrounds help provide a stable reference for our clinical view.

CLINICAL INTUITION

- Clinical intuition is good hard data for which we have little rational framework.
- It is not bad data because it doesn't conform to formal rules of evidence.



THE BEST EXAM…QUESTION #1

An 8 year old patient comes to your office with a paternal history of strabismus and a father wearing reasonably strong plus glasses. The chief complaint is poor attention and reading performance. When asked about sports the child says he doesn't like sports. His father says he does fine at sports and doesn't know why he doesn't care for playing.

Q What is your tentative diagnosis?
What testing would you do to confirm or deny your diagnosis?
What do you expect the results of your testing to show?
What treatment plan do you recommend based on the results?

THE BEST EXAM…QUESTION #2

An 8 year old patient comes to your office with a paternal history of strabismus and a father wearing reasonably strong plus glasses. The chief complaint is poor attention and reading performance. When asked about sports the child says he doesn't like sports. His father says he does fine at sports and doesn't know why he doesn't care for playing.

Q So you were wrong…

THE POINT OF ALL THIS

- We as optometrists share a common heritage and began our practice lives in very much the same ways. We are more alike than we are different and the differences can be used to develop a depth of understanding or they can be used to split us apart.
- The latter option takes more energy, we will have less depth of understanding, and we will manage less space.

FAMILY

In minor ways we differ,
In major we're the same.

I note the obvious differences
between each sort and type,
but we are more alike, my friends,
than we are unalike.

We are more alike, my friends,
than we are unalike.