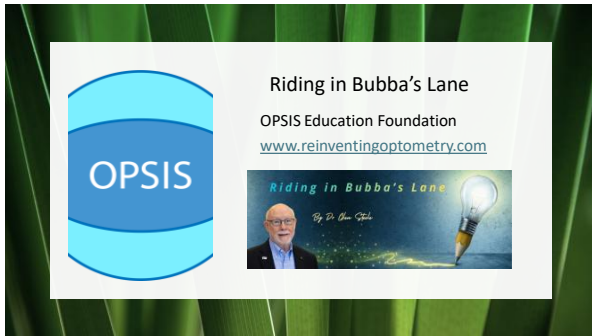
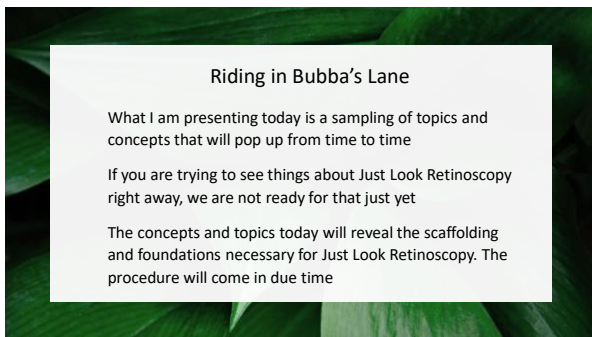



1



2




3



Arnold Gesell, MD

1880-1961
 Psychologist, PhD Clark U 1906
 MD – 1915 Yale
 Pediatrician, Professor Yale University
 Established Yale Clinic of Child Development


4



Cinematography

Over 10,000 children in all stages of development were tested throughout various stages in life
 Later referred to as Gesell's Cycles of Development
 American Optical stepped in after publishing Vision when his grants at Yale were not extended


5



A Sample of Books

Vision – Its Development in Infant and Child
 Developmental Diagnosis
 Infant Development
 Many others

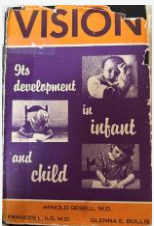
6



Vision

"So interfused are vision and action system, that the two must be regarded as inseparable. To understand vision, we must know the child; to understand the child, we must know the nature of his vision." P 14

7



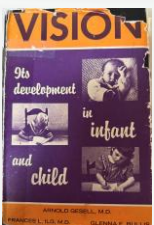
Vision

But we often miss the statement before:

"No one of the major fields of behavior-motor, adaptive, language, and personal-social is normally devoid of visual content or visual controls."

P 14

8




Vision

"The child and his eyes reveal themselves conjointly in outward patterns of behavior."

"Behavior is a convenient term for all the reactions of the organism which are mediated by the neuromotor system."

p.15

9




Vision

"All behavior tends to assume characteristic forms."

"A behavior pattern is simply a definable formed response to a specific situation."
p.15

Bubba – a default action pattern for engagement

10




Gesell Laboratory - Yale

"The delineative action photographs of An Atlas of Infant Behavior were selected from these cinema records."

Two silent cameras ride on the quadrants of the dome." Vision p 12

11



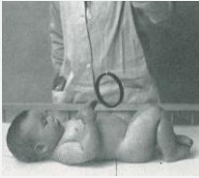
Gesell Laboratory - Yale

"The infant is examined in the crib."

The dome is encased in a one-way-vision screen, which conceals the observers from the infant but permits full view of his behavior."
Vision p 12

12

Testing inside the Dome



"FIGURE 11. The dangling-ring test for a supine infant (age 20 weeks). The head favors a midposition, and hands move toward the midplane by a symmetrotonic reflex (s-t-r)." Vision – p 24

13

Ring and String

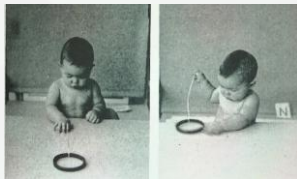


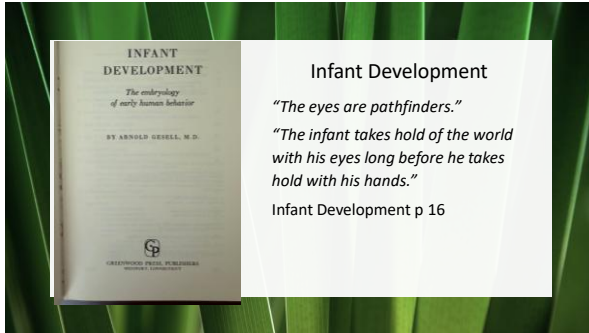
FIGURE 12. Ring-and-string situation for the free-sitting infant (age 36 weeks). Vision – p 25

14

Gesell
Cinematography
clip at four
months of age



15



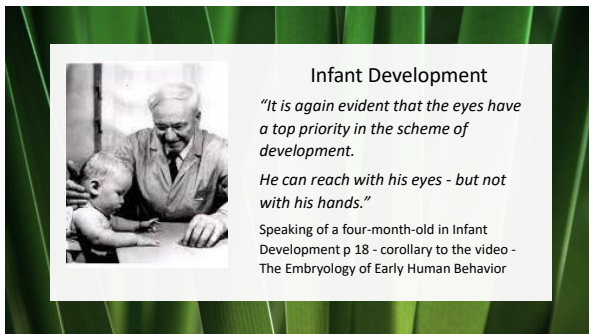
Infant Development

"The eyes are pathfinders."

"The infant takes hold of the world with his eyes long before he takes hold with his hands."

Infant Development p 16

16



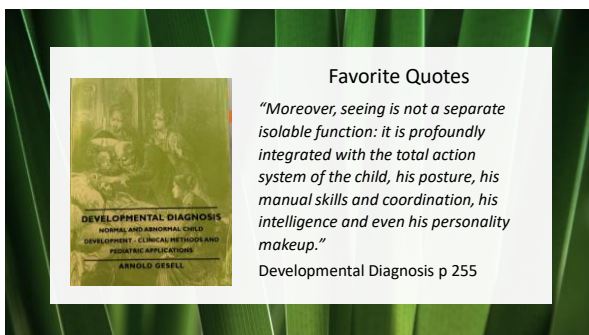
Infant Development

"It is again evident that the eyes have a top priority in the scheme of development."

He can reach with his eyes - but not with his hands."

Speaking of a four-month-old in Infant Development p 18 - corollary to the video - The Embryology of Early Human Behavior

17




Favorite Quotes

"Moreover, seeing is not a separate isolable function: it is profoundly integrated with the total action system of the child, his posture, his manual skills and coordination, his intelligence and even his personality makeup."

Developmental Diagnosis p 255

18



Favorite Quotes

"Indeed, vision is so intimately identified with the whole child, that we cannot understand its economy and its hygiene without investigating the whole child."

Developmental Diagnosis p 255

19

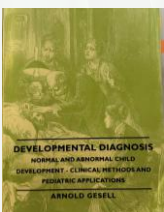


Favorite Quotes

"Vision is the most sophisticated and objective of all the senses. It gives the most detailed report of the outside world, simultaneously registering position, distance, size, color and form."

Developmental Diagnosis p 256

20




Favorite Quotes

"The infant is born with visual hunger" p 257

"The eyes are search-light antennae which are in constant adaptive movement." — p 257

21

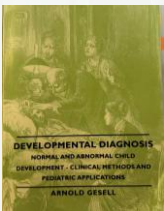


Favorite Quotes

"From the very beginning, there is a motor movement in his visual behavior." p 257

"What the infant sees depends on what he does." p 257

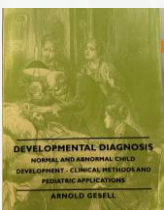
22



Favorite Quotes

*"The kinesthetic impressions which are registered by these eye movements are as essential as the retinal impressions themselves, **because the retinal impressions in isolation would not supply the data which are necessary for comprehension of the configuration of physical objects.**"*

23




Favorite Quotes

*"The motor data furnished by the eye muscles **are soon supplemented** by comparable data supplied through prehension and manipulation and soon thereafter through locomotion."*

Developmental Diagnosis p 257

24

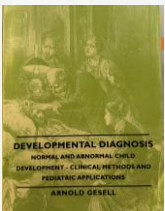


Favorite Quotes

"Vision is a social sense as well as an intellectual sense."

Developmental Diagnosis p 256

25



Favorite Quotes

Speaking of Blindness

*"Even though the infant is not wrapped in silences he lives in a world of visual nothingness which threatens to drive him into increasing introversion as he matures. **The organization of his personality is more endangered than his intellectual development.**"*

Developmental Diagnosis p 255-257

26

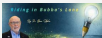
From Angela Perez, PhD

"Most people don't realize this – the most important window for preventing visual issues is before 3 years of age -

not preschool,

not kindergarten

before age three"



27




28

Bubba Adds

We can reestablish and redirect at later ages, but it takes more effort

Development is always moving forward and back, but it does not declare bankruptcy

"Our brain is not static. It is a living system that keeps rewriting itself. That alone is powerful." From LinkedIn – source unknown – regarding the Cambridge study




29

Peter Menziuso – J&J Vision

"Our sense of sight is so precious, it's foundational to how we connect and socialize, how we learn, even our self-confidence."

In June 2024, he added – ***"...and our safety."***

If a person from a traditional contact lens company can say this, it is important for all optometrists to take up this responsibility



30

Bubba Adds

Actions toward engagement as observed through vision expose patterns of action that will be utilized throughout life.

These actions such as Development, Social Interaction, Learning, Earning, Social Interaction and Safety are critically dependent on vision.

This is the scaffolding, foundation, and purpose behind Just Look Retinoscopy.

31

Riding in Bubba's Lane

These are some bits to come in my blog

“Children show us their visual system every minute. We just have to know how to observe.”

Observe the Entrance, Engagement, and Exit from a task or object presented during testing and especially during Just Look Retinoscopy.

32

Riding in Bubba's Lane

I use JUST LOOK RETINOSCOPY to determine HOW the individual initiates action toward engagement, sustains engagement, and exits engagement – Enter – Engage - Exit.

With Just Look Retinoscopy, in addition to “major” issues, we also look for “minor” issues that may have a cumulative effect needing intervention through redirection or more frequent follow-up.

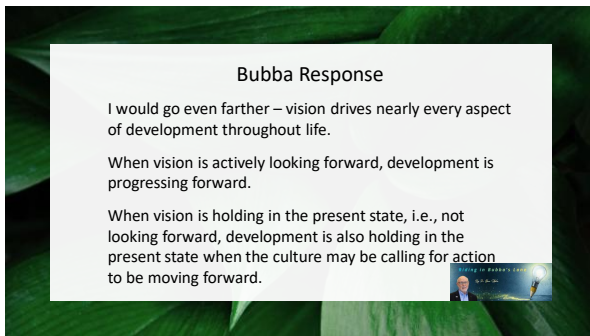
33



Angela Perez, PhD

"Vision drives nearly every aspect of early learning. It shapes motor skills, communication, social engagement, and cognitive growth. When vision is delayed, everything is delayed."

34



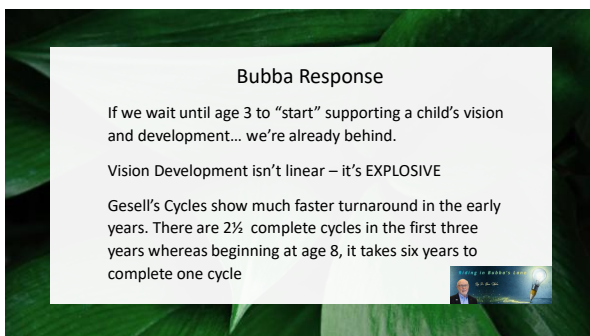
Bubba Response

I would go even farther – vision drives nearly every aspect of development throughout life.

When vision is actively looking forward, development is progressing forward.

When vision is holding in the present state, i.e., not looking forward, development is also holding in the present state when the culture may be calling for action to be moving forward.

35



Bubba Response

If we wait until age 3 to “start” supporting a child’s vision and development... we’re already behind.

Vision Development isn’t linear – it’s EXPLOSIVE

Gesell’s Cycles show much faster turnaround in the early years. There are 2½ complete cycles in the first three years whereas beginning at age 8, it takes six years to complete one cycle

36

Vision

Vision must emerge as the explorer, initiator, instigator, and influencer of action

With early identification and intervention, we have the means to identify and provide intervention appropriate for the child's abilities and culture

We must identify and intervene as early as possible with scheduled periodic care before the "minor" issue becomes a disruption that the child cannot manage

37

OPSIS

www.reinventingoptometry.com
News – Bubba's Lane

38

Bubba Questions

1. If we wait until age three to begin identification and intervention, what have we missed?
2. We know major vision conditions impact development, but what atypical visual patterns of action might also impact the developmental process?

39