

First answer to next Exam is A!

- I. Newborn
 - A. Newborn or Neonate
 1. Appearance
 - a) Large head
 - b) Bulging abdomen
 - c) Splotchy skin
 - d) Misshaped head
 - e) Divergent eye movements
 2. Trying to understand who they are
 3. This period is the first month and a half long
 - B. Sleep Patterns of Infants
 1. Quiet Sleep - 8 hrs
 2. Active Sleep - 8 hrs
 3. Active Awake - 2.5 hrs - interact, smile, talk to them
 4. Alert Awake - 2.5 hrs
 5. Crying - 2 hrs
 6. Drowsiness - 1 hr - like sleeping with eyes open
 - C. Newborn States (Video)
 - D. Why are Arousal states important?
 1. They are an indicator of CNS Development and maturation
 - a) Is related to Sudden Infant Death Syndrome (SIDS)
 2. Premature baby - these states are not clearly defined; usually hard to get them to calm down because they don't have control over these states
 3. Normal baby - states defined, know when they are getting tired, rock and hold them to get them to calm down (easier for parents to deal with)
 4. They have significant impact on parenting and parent/child interactions
 - E. The Newborn
 1. Innate Reflexes - in spinal cord or lower cortex of brain
 - a) Grasping
 - b) Rooting - touch baby's cheek and they will turn that direction
 - c) Sucking - often doesn't happen and have to teach baby how to do it to eat
 - d) Babinski - toes bend outwards then come back in (Video), if toes bend inward, there is a brain problem
 - e) Moro - holding baby up supporting head, lower them then bring them back up while they flare their arms out then bring back in
 - f) Stepping - move body along surface and feet will do stepping motions
 - g) Swimming - naturally hold breath, float to surface, and doggy paddle
 2. Born with these reflexes but by the time you turn 1, they are gone
 - F. Why Do Newborns have them? Why do they disappear?
 1. Development of the Cerebral Cortex
 - a) Majority is the cerebral cortex which allows breathing, temp regulation, increase/decrease heart rate
 - b) Some like Babkin have to do with signaling
 - c) As high level brain, start sending signals to stop the baby's reflex
 - d) These reflexes can come back

G. Reflexes

H. The Newborn

1. Grazelton - books on infants and children, popular tv program
2. Gallop reflex - when stroke along spine they flip

I. Newborn Sensory Abilities

1. Some think they have a high sensory
2. To learn about the world you need to be able to take in sensory information
3. How well do babies see, hear, taste, smell, etc
 - a) Important because
4. How can we study these?
5. Mr. Rogers and Razzeltone

J. 1960's: Robert Fantz - Visual Preference Procedure

1. Fantz - researcher interested in understanding what's going on in bbat head
2. Father of infancy research who Dr. Strauss worked with at some point
3. Had no social skills
4. Was an alcoholic
 - a) Do babies have preferences?
 - (1) Babies see nothing but solid box
 - (2) They actually make decision by using their eyes

K. Sensory Development

1. Robert Fantz in 1960's started using the Infant Paired Preference Procedure
2. Can be used to study visual acuity
3. Minimum Separable - separation between features
 - a) If you can't see the strips, the pic will blend gray; if vision is good enough, the pic is just black and white

L. Eye Tracking - shows you how the baby's eyes are moving

1. As red dot gets larger, baby looked at it for longer period of time

M. Infant Acuity Testing

1. David Teller's simple test card
2. One eye is seeing, other eye

N. Event Related Potentials

1. Record brain waves while baby is looking a flashing car in way you can see the baby's response to the checkered board

O. Infant Vision Testing

1. Eye check chart

P. Development of Acuity

1. How often do baby see...around 20/800 (BAD vision)
2. By 3 months, better than
- 3.

Q. Other Visual Limitations

1. Can only see high contrast stimuli
 - a) Contrast $(L_{max}-L_{min})/(L_{max}+L_{min})$
2. As you go the edge of cente, the black is turning white, with less and less contrast. Eventually you can't see any strip

R. Scanning in Newborns

1. Hard to see silver/gray truck in rainy weather

2. Don't look at internal features, but look at the hair, skin, etc because it has a lot of contrast
 - a) 2-3 months - vision gets a lot better and socially smiling because now they can focus on the face and socially respond to it
- S. Auditory Thresholds
 1. Tested with High Amplitude Sucking Procedure
 - a) Put pacifier in baby's mouth, sound gets loud if baby is sucking rapidly, gets softer if baby is sucking slowly
 2. Newborn hear above 27 dBs
 - a) Suck faster trying to listen/adjust with a sound
 3. Can discriminate about 1 note on the musical notes
- T. Newborn Speech Perception
 1. H.A.S procedure is also used to study speech perception
 2. P. Eimas: Can newborn discriminate "B" from "P" sounds
 - a) Tested how they can discriminate the sounds which when first comes on, sucking increases, and gradually sucking goes down
 - b) Demonstrate how babies can differ Bs v Ps
- U. Study by Peter Eiman
 1. Japanese tested because adults can't hear R v L
 2. Tested Japanese babies and CAN tell between R v L sounds but lose ability by age of 1 because it isn't detected in the environment
 3. Babies can hear between all different sounds when born but lose ability eventually due to adapting to sounds in their environment
- V. How can babies tell how many and what words are?
 1. Unconsciously analyzing what words are by listening astutely
- II. Adolescence
 - A. Sets European clock 5 hours ahead and don't want to go to sleep on time and want to get up later in the day
 - B. Sleep Deprived - emotions raging and swinging, poor decision making
 - C. Why we think we should push the time of starting high school later
- III. Current Event 1
 - A. Correlation between white matter in brain and exercise
 1. Is it exercise causing white matter in brain?
 2. Correlation doesn't mean causation
- IV. Current Event 2
 - A. Eating Disorders
 1. Nutrition and sleep are important and parents aren't realizing
 2. Vomiting on purpose
 3. 8-12 year olds identified with eating disorders based on wanting popularity
 - a) Concerned about being judged on body type as early as this age
- V. Newborn Continued
 - A. Basic Flavors
 1. Sweet - On tip of tongue
 2. Bitter - Back of the tongue - feels like you are about to choke
 3. Sour - On the sides towards the back