

Problems with Preemies:  
Why “catchup” is for french fries  
Or..... What’s the rush?

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# Objectives

- Identify the scope of the morbidity problem
- Describe fundamental competency of fullterm infants from birth
- Contrast experience after preterm birth
- Identify environmental and social risk factors which impact development.

# Developmental Outcome VLBW

- Motor and mental handicap

10%

- Learning disability (LD) more pervasive

- Visual perception,
- Visual motor integration
- Language
- Attention/Memory
- Hyperactivity/self-regulation
- Social immaturity

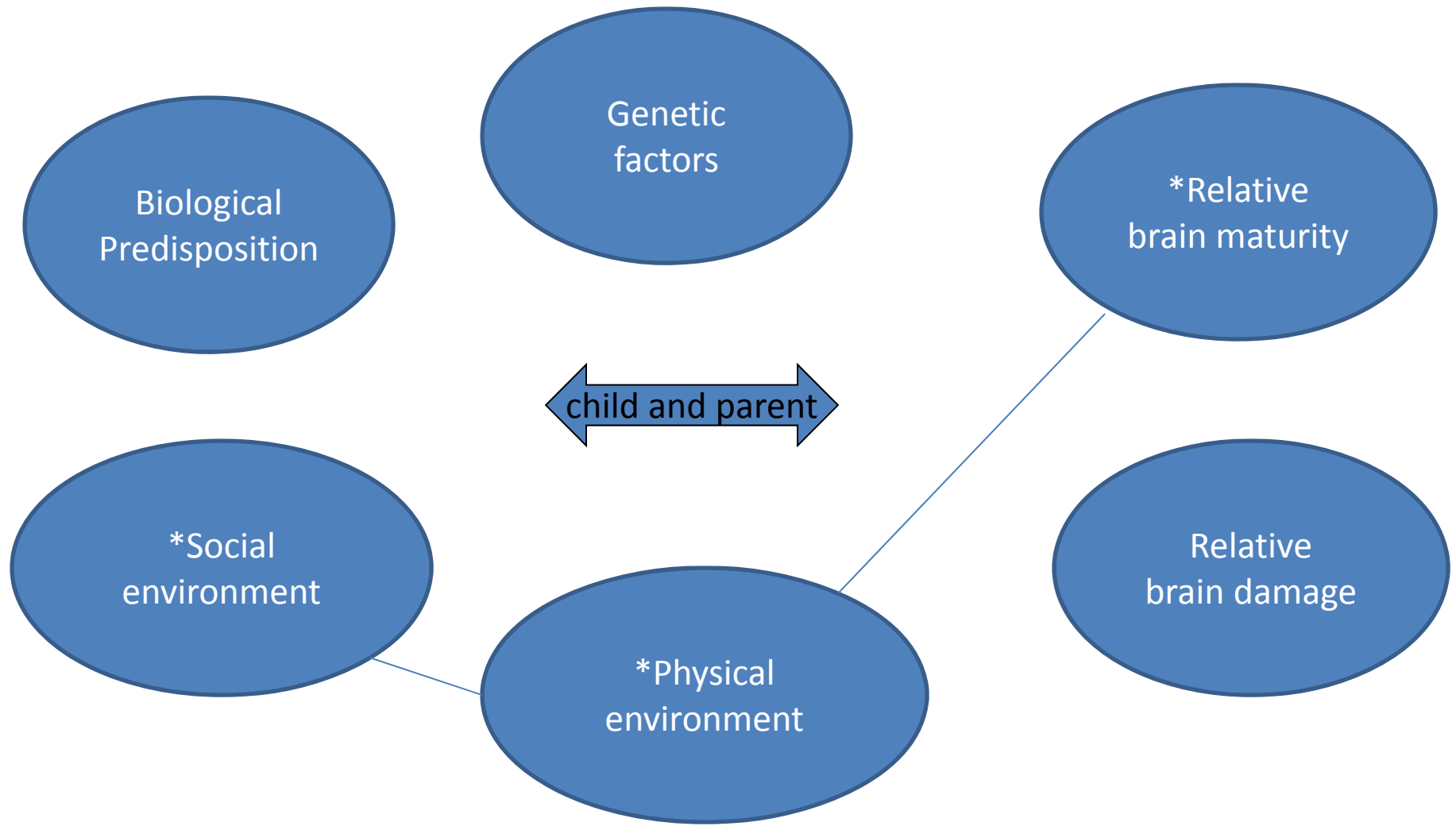
50%

(FT =10%)

# Scope of the Problem

- As mortality rate improves,
  - given the same morbidity rate....
- Result: increase in absolute number of children with developmental problems:
  - Controlling the muscles of their body
  - Paying attention to what is important

# Factors impacting child development

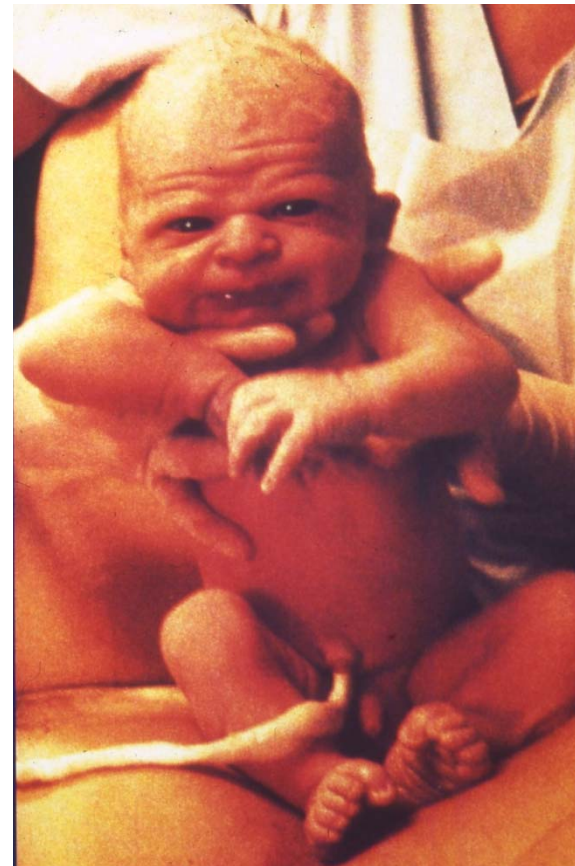


# Early human development at term: Biologically predisposed social beings:

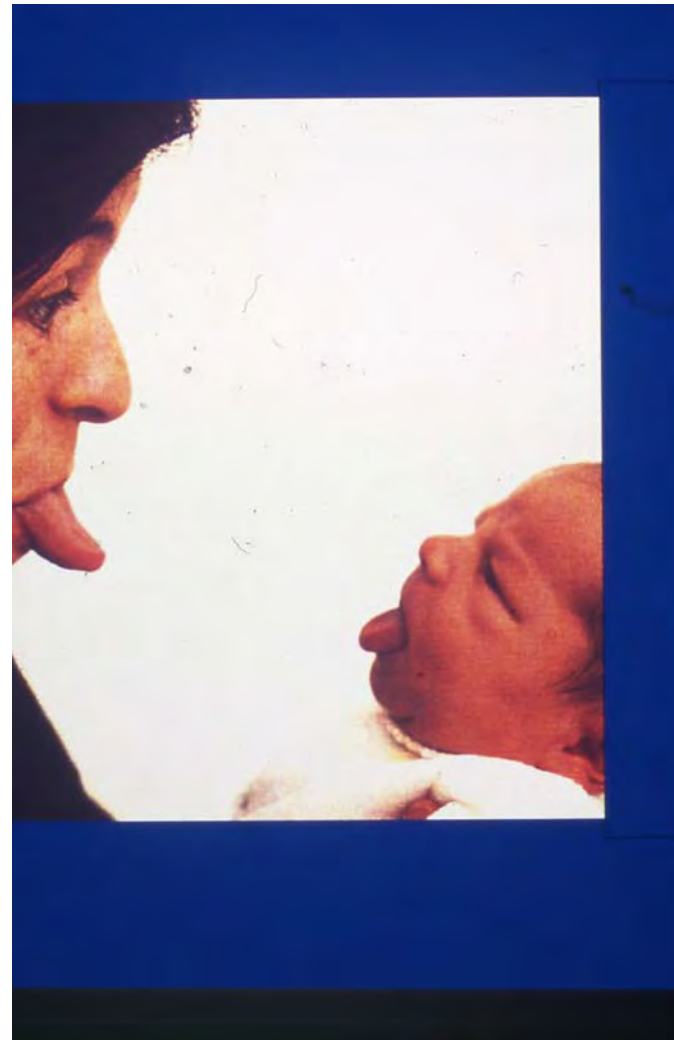
- Recognize/prefer mom's:
  - scent, taste, voice, language
- Equipped with:
  - “Innate releasers”
    - Root/suck, cling, nestle, cry,
    - Visual regard
    - Empathic distress

Fostered by:

- Interactional synchrony



# Social Predisposition: mirror neurons?

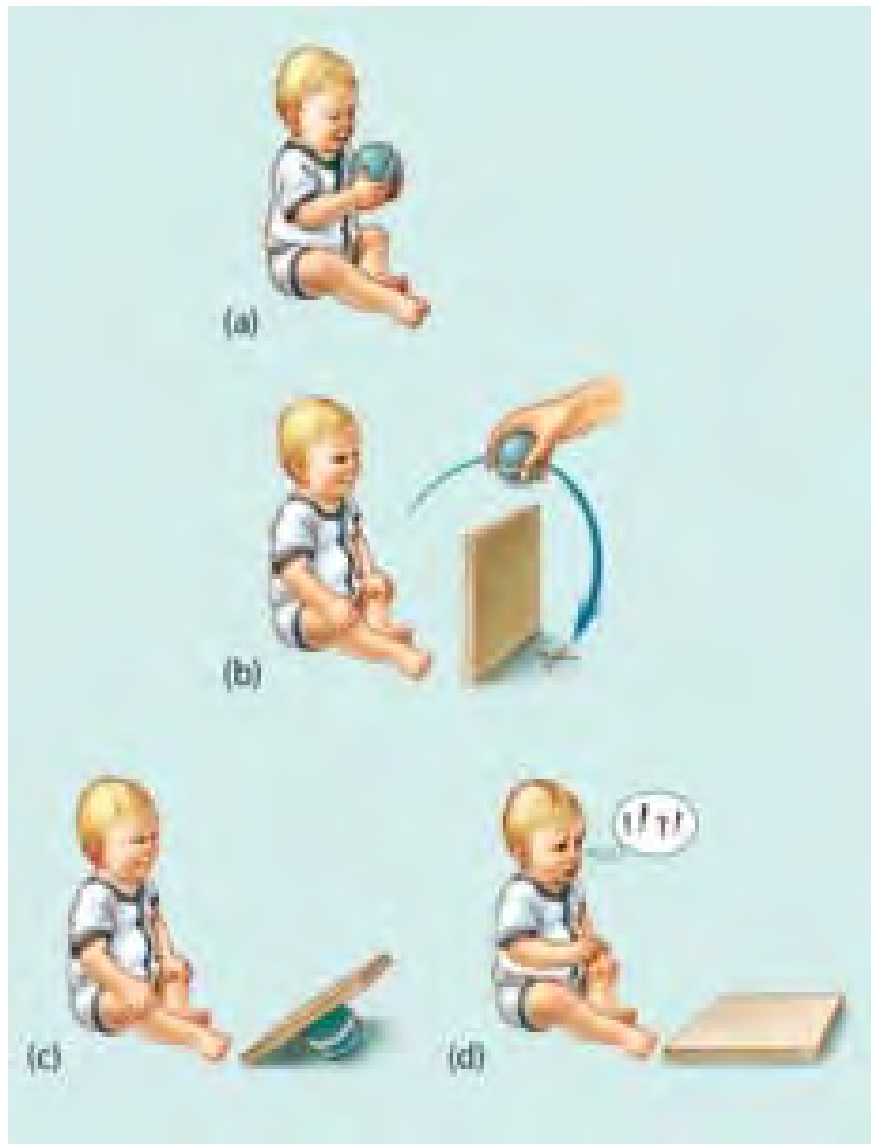


Smile in response to a smile  
+ Mirror parent's emotion





# Object permanence and impossible events...



(a) Object identity

(b) Follow the ball.....

(c) to the possible

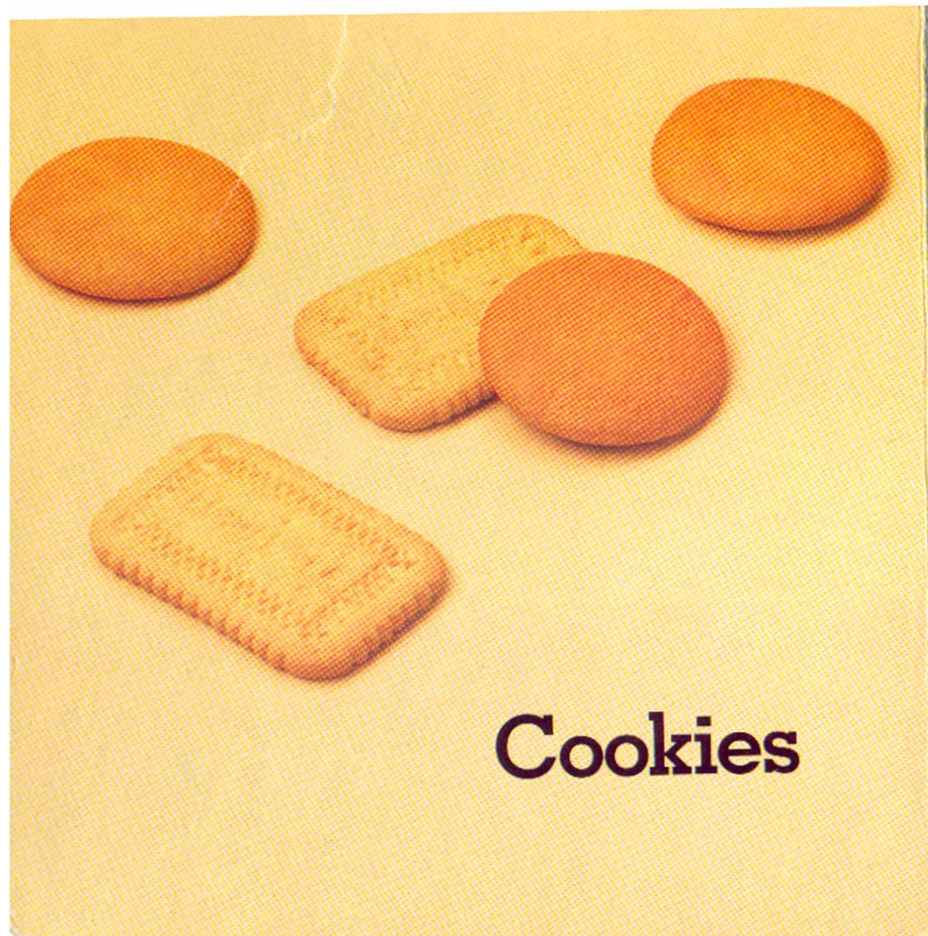
(d) and impossible....

# Social referencing



Looks for information in facial expression on whether to proceed or inhibit

Picture to be a representation



Mastery motivation: just because it's there....



# Preterm infant and disruption of parenting experience

- “6 sticks of butter”
- physical separation
- vulnerable appearance
- disruption of biological clock
- change of itinerary



# Loss of Identity as Parent

- Nurse...  
    Therapist....  
    Teacher...
- The feeling of
  - “not good enough”



## Problems of prematurity:

1. Feeding issues/mixed signals
2. Controlling the muscles of their body
2. Not paying attention to what is important

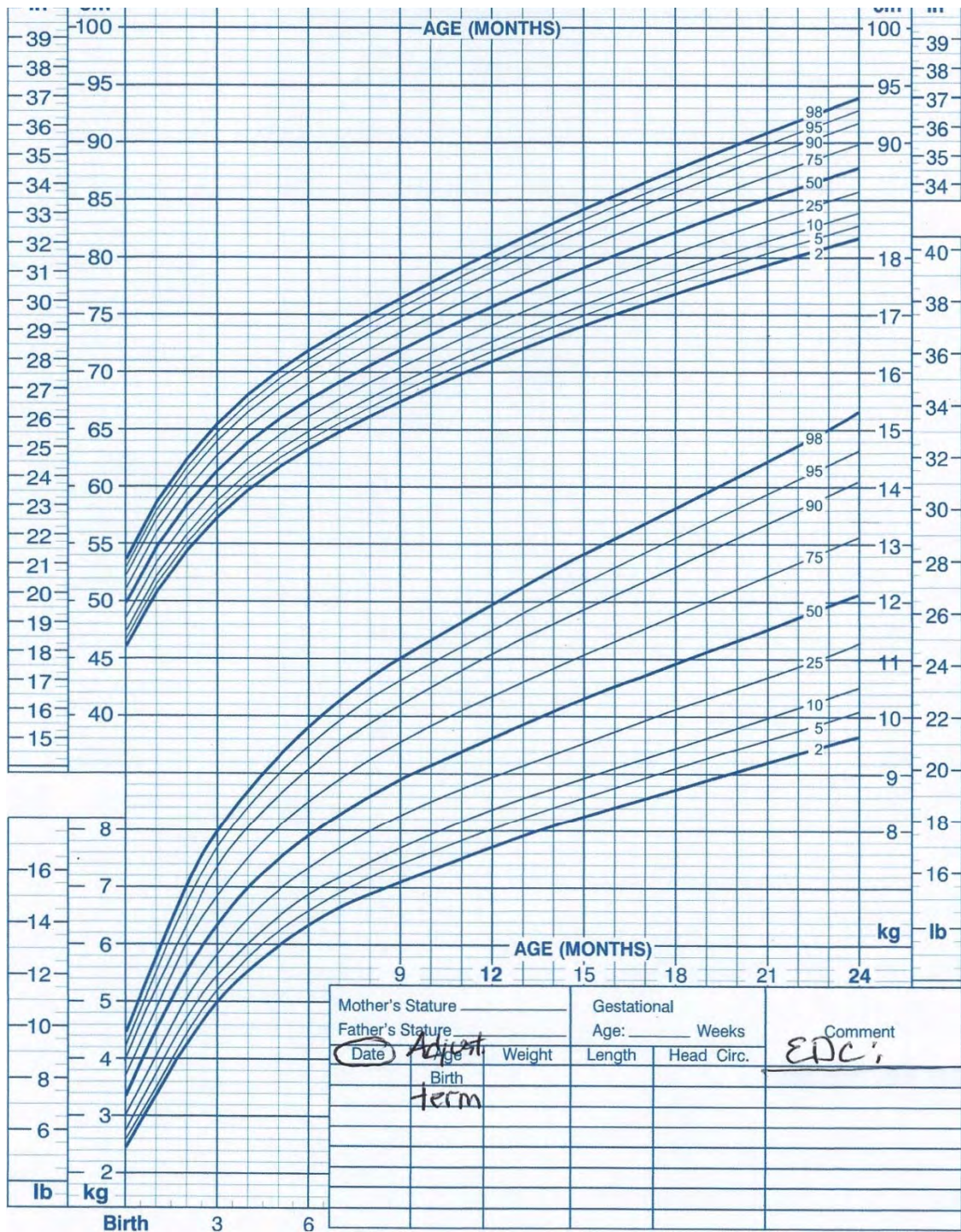


# Parents model their NICU experience

- NICU parenting is measured by:
  - amount consumed (cc's)
  - amount gained (grams)
- Post-natal growth by chronological age means parent is -  
“not good enough”







Corrected age is the "Real Age" for someone not ready to be born

Corrected age helps  
ease the tendency to over-feed...  
to make him “catch up”



Mealtime routines are important moments for social engagement, attention, & self-regulation



enchanted



disenchanted

## Sensory/Physical Environment gone overboard

### OBSERVATION:

- The more anxious the parents are about “catch-up”, the more they seem to “over-do”.
- Terrified they may hold back development if they don't do everything
- Excess early visual stimulation skips a milestone (hand regard) and delays visually directed reaching



If we do this because they can see it better, it's equivalent to shouting

“Pattern” stimulation is  
equivalent to wallpaper

Non-contingent  
stimulation  
impedes development



# Let's Animate!



# Messing with visually-directed reach







Let's not forget "Tummy Time"!

Objects should fall when a baby lets go.  
(visualize in relative adult size)



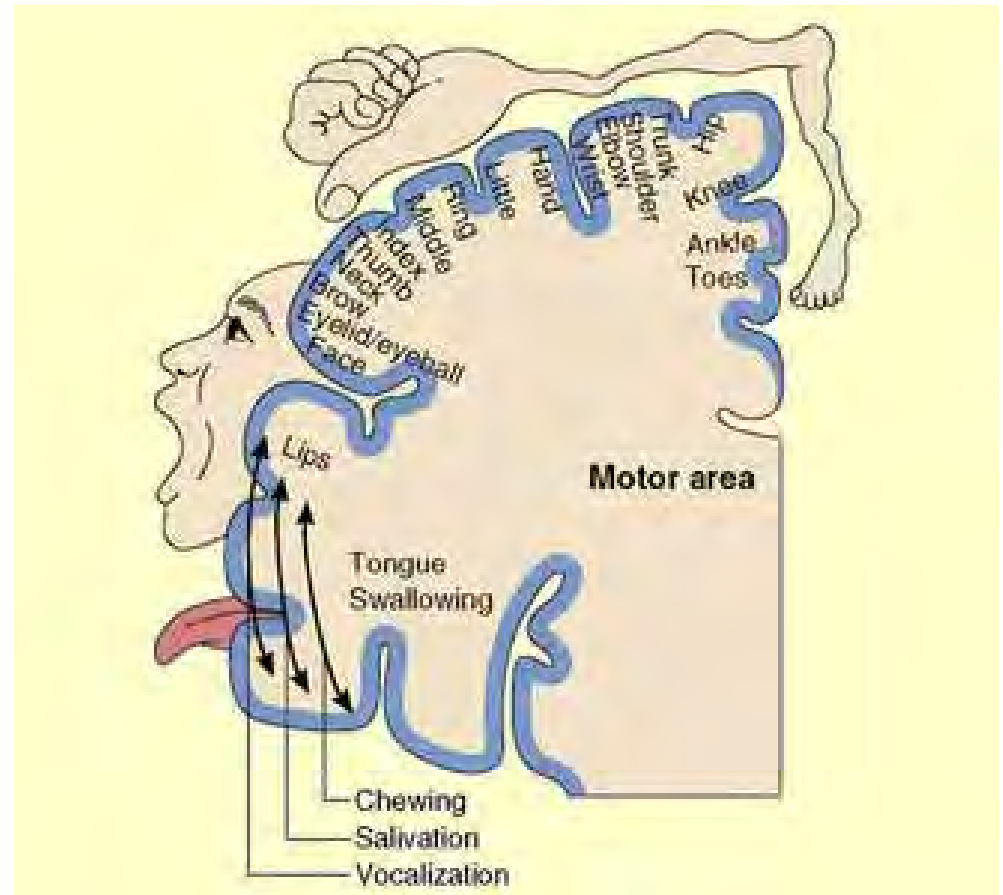
Why should a child respond to their name when they “choose” whether or not to attend to TV/video input



# Practice increases the relative brain area...



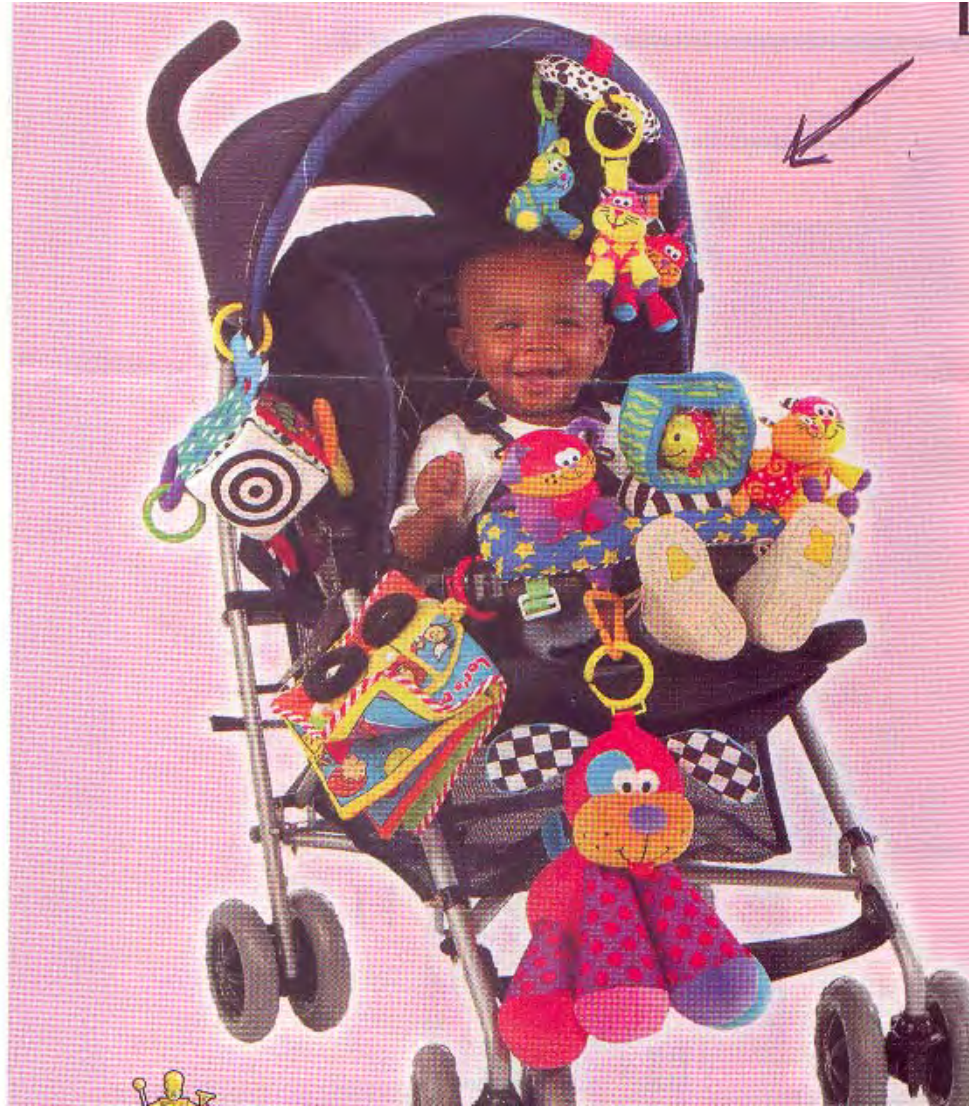
Relative area of Motor cortex



Note the glazed expression.....



# Preparing to go for a walk



## Importance of mastery motivation and risks of “pushing” to catch up

- Impact of excess reinforcement
  - loss of internal motivation
  - becomes overly dependent on adult
  - Stop repeated to wait for cheering squad rather than focus on the goal

To summarize:

Why “Catch-up” is for french fries, not for preemies!

- Premies do not need to develop at a faster rate than expected of a FT baby.
- Parental stress of a premature birth is further burdened by the pressure to get the baby to do more than they are ready for.
- Baby becomes overly reliant on adult support for a task that is too complex and skips the underlying skill development which would have led to independence.

