

learning to read

- first base: automatic word recognition (grades 1-4):
 - under 50-70 WPM: cannot comprehend easy texts
- Q: What factors matter?
 - verbal memory (e.g., sentences): $r = .5$
 - SES: $r = .5$ to $.6$
- Q: What pre-reading skills matter?
 - [Think about: How do these interact with SES?]
 - letter knowledge/ID: $r = .5$ w/ reading @ end 1st grade
 - phonemic awareness: $r = .4$
 - print concepts*: $r = .5$

great debate over pre-reading: whole language vs. phonics

- 2006: Googled 35,000+ hits!
- what is fundamental?
 - ◆ phonics: decoding orthography; alphabetic sound-letter associations; rules for pronunciation
 - ◆ whole language: word meaning; text comprehension; literacy activities; integrating meaningful reading activities into curriculum
- stereotypical classroom activities:
 - ◆ drilling sounds & repetitive training vs. reading books

whole language vs. phonics: research

- Phonics training helps later reading:
 - letter knowledge predicts 1st grade reading ($r = .5$)
 - BUT many studies show no special improvement
 - except better phonics skills, and
 - only in 1st grade (one study: worse 5th grade comprehension!)
 - many rules are wrong! (ex: 2 vowels walking; 1st talking)
- WL: exposure to books predicts early reading
 - more reading & phoneme awareness in 1st grade
- Comparing: slight 1st-grade advance in phonics
 - much research badly confounded

best of both worlds?

- phonics:
 - word decomposition helps 1st-2nd grade word decoding & recognition
 - only as much time as needed
 - NOT drilling and rules
 - focused games w/ feedback and adjustment to child's level of letter-knowledge and orthographic mappings
- whole language:
 - importance of vocabulary: learned from context
 - motivation to read (free choice of appropriate texts)
 - remember end goal is **COMPREHENSION**, not scores!

So why did phonics “win,” until 2000?

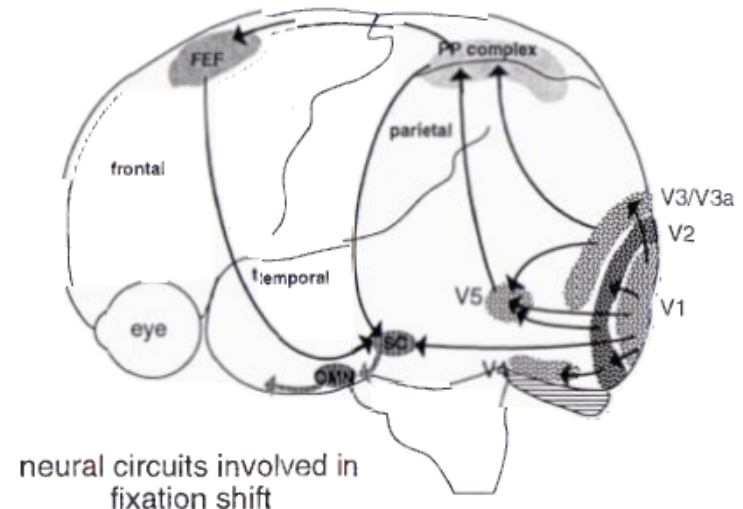
- CA NAEP scores ‘92-’94: very low
- looking for blame:
 - adoption of literature-based basal curricula (‘80s)
 - 1987-’97: from 650,000 to 1.4 million LEP students
 - 1980s: severe budget cuts; 1990s fallout:
 - ‘94 teachers: 39% Ed majors (vs. 69% nationwide); 29% advanced degrees (vs. 41%)
 - ‘96 Ed spending: 17% lower per capita than Nat’l ave; \$750 less per pupil
 - 93% of classes larger than 25 (vs. 41% nationally)

The Phonics Tag-Team

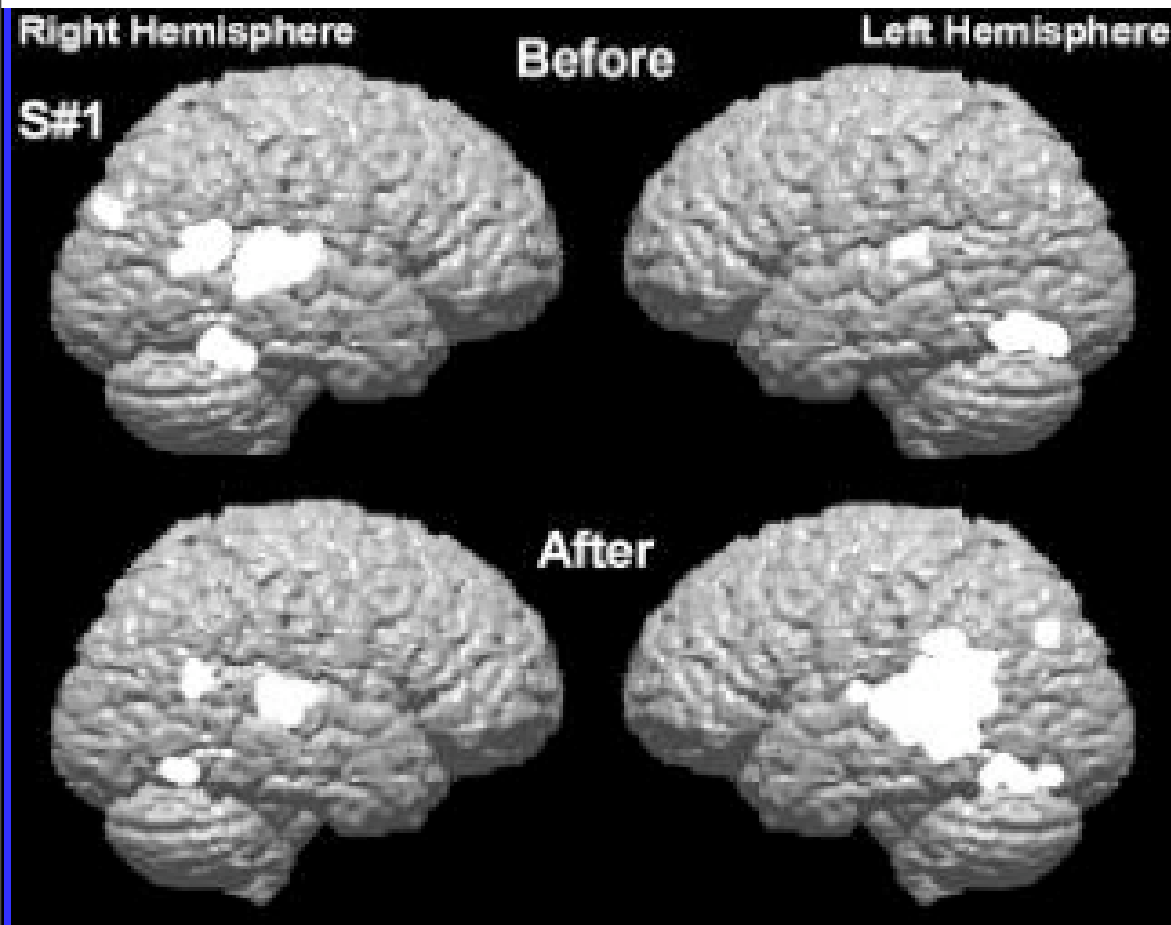
- catalyst: Grossen's report "30 Years of NICHD funded research" (inaccurate; financially motivated)
- NICHD publicized 1 study (not published or peer-reviewed; not finished by '95-'96 media blitz)
- republican & right-Christian lobbies pushed phonics
- Why? According to fundamentalist Christians: "God [made] an orderly universe": focus on rules; obedience to authority
 - traditional basal readers: religious content
 - whole language emphasizes analysis, comprehension, choice of reading...antithesis of fundamentalism
- part of education platform for GHWB & GWB

Best practices for reading disabilities: Steering education towards sensible practices

- defining reading disabilities: Goswami's questionable assumptions:
- IQ and LD: define by IQ-difference, or by poor reading progress relative to quality of instruction? (Fletcher)
- dyslexia is label for extreme of continuum of reading ability relative to grade/instruction (Fletcher)
- magnocellular; cerebellar?
- what other brain regions?



brain areas in reading...



- inferior medial frontal, tempero-parietal, ventral-posterior temporal
- early risk: letter-sound, phonolog. awareness, lang. production abilities
- intense multi-month program: standard scores rose from ~10th% to ~50th%
- activation changes in same cortical areas
- typical SpEd programs: no change
- need intense massed practice, adjusts to child's growing abilities
- multi-tiered