



Capitalizing on the  
Presented by  
Window of Language  
TEHDI Meeting 2014  
Acquisition  
National Association of the Deaf

# What is Language?

- Definition:
- # of languages in the world
- Natural vs. Learned



# What is a Critical Period?

An ideal “window of time” to acquire an language before it becomes difficult in later life.

Lenneberg, 1967



# Typical Language Rates

Age	Language Growth
One Year	One-word/sign
Two Years	Two-word/signs, lots of new vocabulary
Three Years	Growth in grammar, word structure, and vocabulary
Five or Six Years	Some syntax (grammar), understanding how to use language
Afterwards	Language growth with maturity, interests, and related education

Ortega, 2009

# Window of Language Acquisition

Birth to 5 years old (critical period)

By 6 months old (no longer able to recognize hand movements or sounds that are not used by people around them, face to face conversation/turntaking important)\*

1-2 years old (Brain organizes language)

3-4 years old (window of syntax/grammar closing)

5-6 years old (struggle in communication- tantrums if don't have sufficient language)

7-13 years old (limited in grammar- can acquire vocabulary naturally)

13 years old and older (not able to acquire language naturally anymore- must learn/practice)

\*"Use it or lose it"- Gopnik, A., and A.N. Meltzoff, P.K. Kuhl. The Scientist In The Crib, What Early Learning Tells Us About The Mind. (William Morrow and Co., 1999).



"In the first five years of life, 85 percent of the brain is developed," said Armstrong, the psychologist who examined Danielle. "Those early relationships, more than anything else, help wire the brain and provide children with the experience to trust, to develop language, to communicate. They need that system to relate to the world."

<http://www.tampabay.com/features/humaninterest/the-girl-in-the-window/750838>

“Monolingualism..... is the illiteracy  
of the 21st century”

Time magazine July 29th, 2013



Bilingualism is not only about learning a  
second language, it makes the brain  
more efficient at other tasks.

<http://science.time.com/2013/07/18/how-the-brain-benefits-from-being-bilingual/>

# Now what about Deaf or Hard of Hearing Children?

- Key word is ACCESS
- If the brain doesn't get it, it never gets it.
- Average age of Cochlear implants is 11 months (PLUS mapping for another year)- that means nearly full 2 years of limited auditory access
- First ASL sign occurs at 6-8 months of age
- First English word at 10-12 months (vocal chords not fully developed)



\*Maryland School for the Deaf students score higher on State test than Frederick county students, Davidson, Lilo-Martin, and Pichler (2014)



# Why ASL?

<http://aslized.org/whyasl/>

# How does the Brain Develop Language?

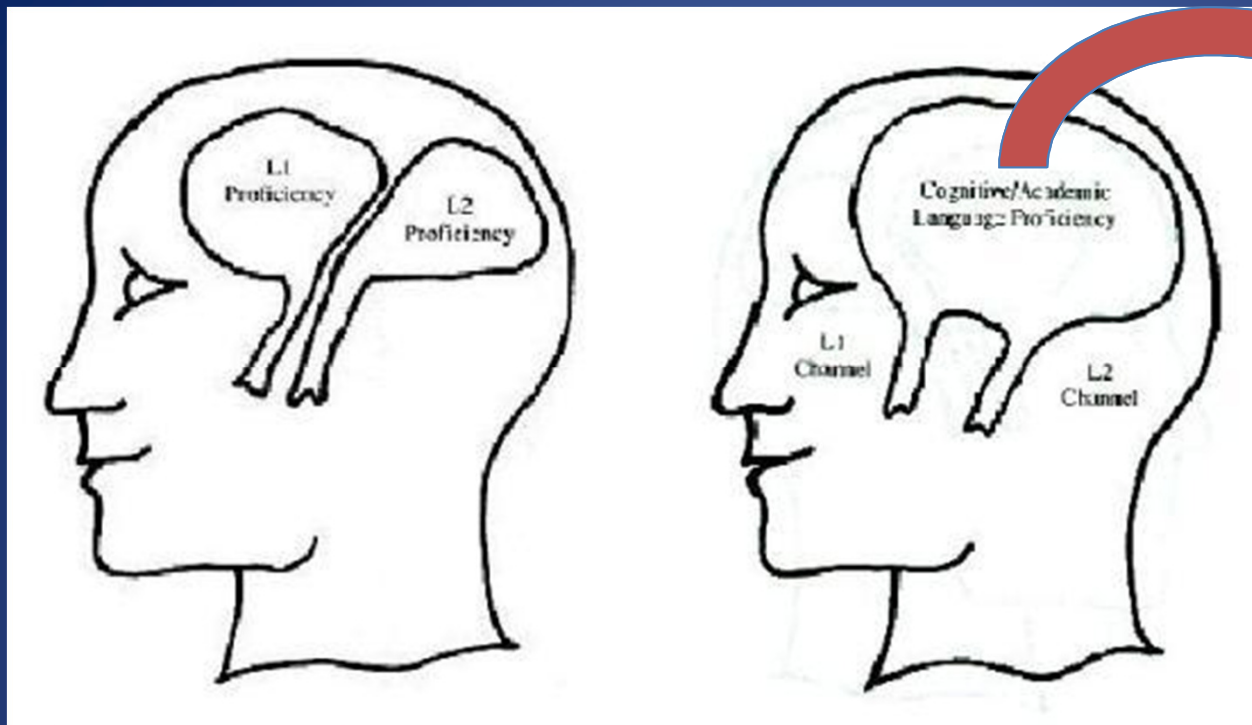
- Brain on diet
- Innate Universal Grammar Device
- *“The brain does not discriminate, people do.”*  
-Dr. Laura Petitto

**Equal Bilinguals**



**Unequal Bilinguals**



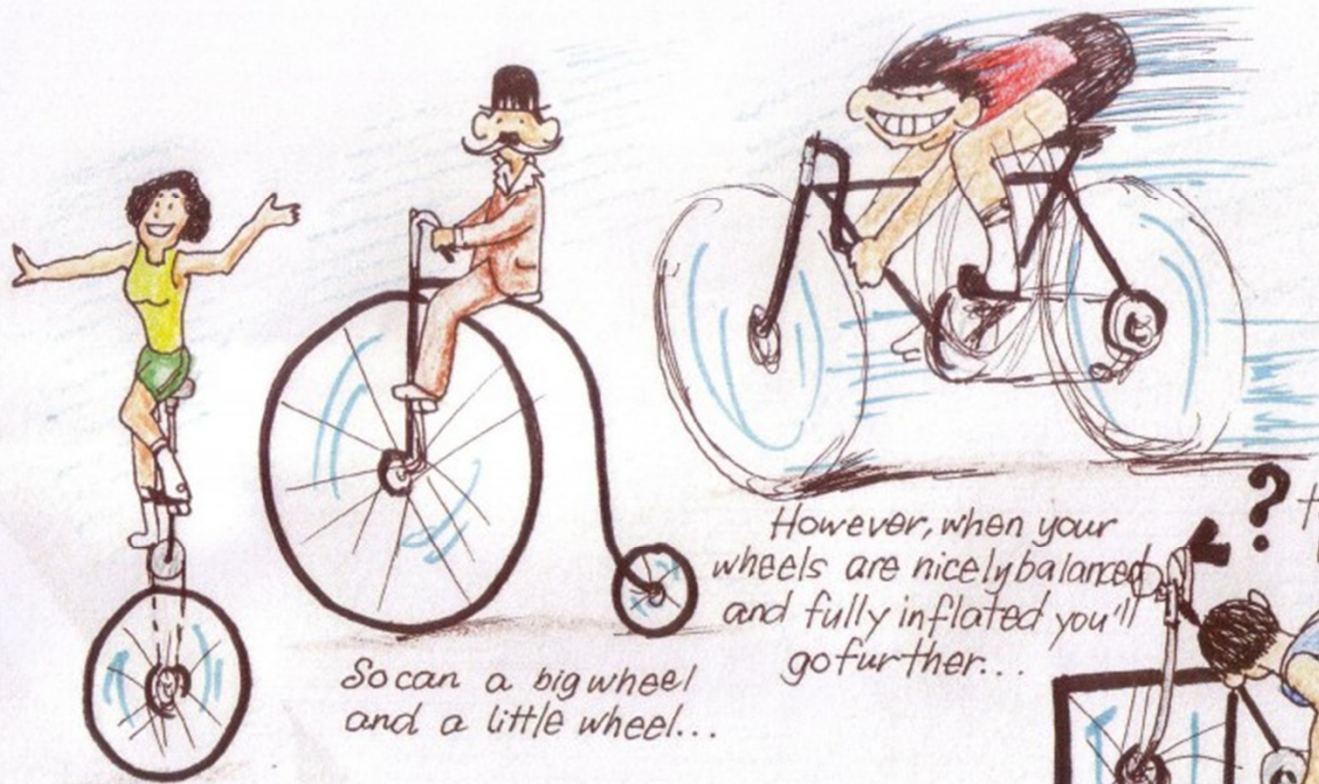


Cognitive/Academic  
Language Proficiency

Common Underlying Proficiency  
Baker, (2006), p. 167-170



Balanced Bilingual- Cummins, (2009)



One wheel (one language)  
can get you places...

So can a big wheel  
and a little wheel...

However, when your  
wheels are nicely balanced  
and fully inflated you'll  
go further...

Provided, of course,  
the people who made the  
wheels knew what they  
were doing...

*Bilingualism in the Home*  
(Cummins, *J. Heritage Language Bulletin*,  
Vol. 1, No. 1, p10)

# Misconceptions



- A child can't learn two languages at the same time.
- There is NO research showing that American Sign Language will harm a baby/child's acquisition of spoken or written English.
- Actually, research shows the opposite.
- If a child has full access to one language, it's EASIER to acquire a second one.\*

\*Study of Deaf children of Deaf Parents- had higher English skills

# Resources/Support for Parents in acquiring an second language

- ASL classes
- Apps
- Books
- Deaf Mentors
- Early Intervention professionals that know ASL
- Speech therapists/teachers/SLPs
- Schools (Family Fun weekend, ASL Week)
- Parents groups, play dates, peer mentoring
- State deaf associations (parent-friendly events for immersion)
- Shared Reading Project
- Language tutors



The BaoBab by VL2 (iTunes)



# Recipe for a Bilingual Child

- ★ **1 Take 1 baby** →
- ★ **2 Add 2 languages**
- ★ **3 Stir well for years**

For best results, stir vigorously during the first 3 years, with daily heapings of speech, books, music, and games in the second language. Continue stirring throughout childhood, seasoning both languages to taste. Your flavorful bilingual child serves not only self and family, but many others, too, far into the future.



# References and Resources

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- Kovelman, Baker & Petitto. (2008). “Bilingual and Monolingual brains compared”
- <http://vl2parentspackage.org/> (free information package and parent-friendly tips via email)
- [Training on ASL-English Bimodal-Bilingual language planning for schools, community and parents](#) (Dr. Laurene Simms and Susanne Scott, Clerc Center)