How to foster your child’s language development

Nan Bernstein Ratner
*Department of Hearing and Speech Sciences*

[nratner@umd.edu](mailto:nratner@umd.edu)
Overview

• Starting at the very beginning – why even “babytalk” is more valuable than you think
• How important is parents’ speech to kids?
• Things that help all children (as far as we know)
• Things that “get in the way” of children’s language development – and how parents can work to maximize success
• How parental language leads to literacy and other good outcomes
• Controversies: media, e-toys and teaching tech
A few words about what I study: child-directed speech (CDS), sometimes called “Babytalk”

KENSINGTON, Md. Baby talkers, says Nan Bernstein Ratner, should not be ashamed of the goo-goo's and gaa-gaa's and all the other sounds that they make at babies that sound silly but feel right.
“Who’s mawmee’s pwitty widdle baaabyy? You are!!! Yes, you are!!!”

“I’m supposed to learn from THIS????”
"I do realise this probably indicates a certain lack of fundamental maturity but I actually prefer baby talk."
I am here to talk about why child-directed speech is very important:

Let’s take things from the very beginning...
Did you know that you can teach your baby before she’s born...?
Infants’ memory for their mothers’ speech in the third trimester suggest that... 

She’s learning quite a bit about language before she’s born!

Some fast facts about “Babtalk”…

• Also called infant- or child-directed speech…or “motherese” (fatherese/parentese)
• It’s found in virtually all societies around the world
• And has similar features
  – High pitch, exaggerated prosody (inflection), short, repetitive utterances, and a different set of vocabulary items…
• Exceptions are rare, but do exist (e.g., Mayans in Central America, Kaluli in Papua New Guinea)
  – In these societies, children actually do learn to talk at a slower pace
  – Learning from siblings or “overheard” speech is not as effective
“Babytalk”: good or bad? Some facts

• Infants prefer babytalk and learn better from it than adult-adult “style” speech in laboratory experiments

• It’s so clear and well-structured that “even” computers can learn from it, but not from adult-adult speech

• A universal finding: The more infants are talked to, the better their language skills are
How early can we tell if a child is “on track” to process this early language?

• As work done in HESP shows (Newman) … long before before they can talk.
  – By 7 months, they know their name
  – By 8 months, they can recognize individual words from conversation
While only saying 1 word at a time, they can understand, “Cookie Monster pushes Big Bird” vs. “Big Bird pushes Cookie Monster”...

– SYNTAX
But not every child seems to do it as early as others

• So, we have been tracking 125 families from 7 months to 24 months and beyond
  – Research sponsored by NSF

• Our work (Ratner, Newman) shows that some infant language abilities at 7-8 months of age predicts language skills in KINDERGARTEN.

• We’ve also uncovered new findings about CDS and language development
We’ve both confirmed and extended work on the value of CDS

• We have extended the literature showing how important parents’ speech to infants, toddlers and children is
• YOU are your child’s most important language learning resource!
The role of input in child language development

Including some recent work done here at Maryland…
An overview of how we study input and interaction

- We bring parents (typically mothers) in to play with their infants/toddlers multiple times from 7 months to 24 months
- We transcribe what they say, and use computer programs to analyze patterns
- In this study, we have one of the largest samples of “motherese” ever compiled: over 1250 sessions, almost ½ million child-addressed words, 125,000 utterances…
What we are finding:

• Input matters, particularly a wide variety of vocabulary, repeated often, at young ages (7 months)

• Other parent behaviors that boost later toddler language skills:
  – Imitating what the child says
  – Expanding or recasting what the child says
  – Using a slower (but natural) rate of speech

• All of these had very high correlations with the child’s language scores at 24 months
Let’s take these one at a time in more detail…

Quantity of input really matters, even WAY before a child can actually talk (this includes even children with developmental problems):

– Treating the child as communicative even when they just look or vocalize
  • Reception leads production
  • Bathe a child in language from Day 1; as far as we know, there is no “end point” to this benefit
“Flooding” the child with input

- Is actually a therapy component for some children/families
- Hanen Training
- Focused stimulation

- Does it work?
  - Actually, it does. Encouraging parents to talk more with (not around, or AT) a delayed child does produce language growth, compared to “control” families
But quality matters too:

- Things that make input work better for children:
  - “Contingency” – following, not leading the child’s attention
  - REPETITION – saying things much more than once
  - “Recasting” – rephrasing and enlarging kids’ attempts
What does recasting or expansion look like?

- CHI: Blocks!
- MOT: Blocks. Yes, they have blocks here.
- MOT: Do you want to play with the blocks?
- MOT: We can pile them up. We can build with the blocks…
- CHI: Build blocks.
- MOT: Let’s build with them. Let’s build with the blocks.
But some things can make CDS less effective:

• When the child doesn’t initiate (or respond) in a typical way

• How to deal with this?
  
  – **Communicative temptations**: making it necessary for the child to request help, and shaping early attempts (a look at you) into progressively more advanced efforts (sounds, word attempts, signs)

  – A large component of Prelinguistic Milieu Teaching (PMT) for young children with ASD
Creating a need to communicate: Combining talk with incentives

Find the stick in the bubble bottle. Where is it?" "Euw! Sticky!" "There it is." Get ready to blow! "Ready?" "Blow!"

See bubbles everywhere, floating and popping. "Up, up." "Pop, pop, pop!" "All gone."

Feel wet circles everywhere. "Oh it got the table wet! Wet table. It’s wet everywhere!"
What else can make CDS less effective?

- When children don’t seem to understand language, parents tend to “order” rather than use typical input
  - E.g., “Sit down” rather than “it’s time to eat” – this actually has been shown to depress language development, but is a natural response to a child who has communication problems.
  - So, it’s normal, but parents can try to respond differently.
What else can go wrong?

• People actually talk more with kids who talk more –
  – The “rich get richer and the poor get poorer” or “Catch-22” problem (for you old folks in the audience)

• How do we respond?
  – Thinking about speech to kids as a form of investment – early deposits will produce yields later…
Some things parents do seem very strange!

• Is there any point to:
  – Speaking to a child using “babytalk” register?
  – Asking AND then ANSWERING lots of questions?
  • “Is that yummy? Yes, it is!!!
Are some words more useful than others?

• Parents and teachers can get very “noun-y” when trying to help children learn first words.
• But many children actually prefer other words!
  – E.g., NO! is a very good word!
  – As are activities that children like, or ways to communicate frustration…
Should I correct my child’s pronunciation or language?

• The evidence doesn’t suggest that this helps most children at all
• And it could be very frustrating to the child
• Try to prioritize the message over the form
“Motherese” and “Fatherese”…

- Are different, and this is OK.
  - Moms tend to make things easier for kids…
  - Dads tend to create a “bridge” to adult language.

- “Compass” or “watch”? 

- Barbie or “baby”? 

“Hot topics” in CDS
How effective are baby “teaching tools”?
The reality:

No Einstein in Your Crib? Get a Refund

By TAMAR LEWIN

Parent alert: the Walt Disney Company is now offering refunds for all those “Baby Einstein” videos that did not make children into geniuses. They may have been a great electronic baby sitter, but the unusual refunds appear to be a tacit admission that they did not increase infant intellect.

“We see it as an acknowledgment by the leading baby video company that baby videos are not educational, and we hope other baby media companies will follow suit by offering refunds,” said Susan Linn, director of Campaign for a Commercial-Free Childhood, which has been pushing the issue for years.

Baby Einstein, founded in 1997, was one of the earliest players in what became a huge electronic media market for babies and toddlers. Acquired by Disney in 2001, the company expanded to a full line of books, toys, flashcards and apparel, along with DVDs including “Baby Mozart,” “Baby Shakespeare” and “Baby Galileo.”

The videos — simple productions featuring music, puppets, bright colors, and not many words — became a staple of baby life: According to a 2003 study, a third of all American babies from 6 months to 2 years old had at least one “Baby Einstein” video.

Despite their ubiquity, and the fact that many babies are transfixed by the videos, the American Academy of Pediatrics recommends no
Why don’t they work?

• Research has long shown that it is the INTERACTION between babies and other people, particularly verbal interaction, that advances language and other skills.
  – In particular, infants gain from joint attention – when someone sees what interests them, and follows up on it. Thus,

• You will get more durable results by reading or playing with your baby using the **same toys and books** you had as a child (or a cardboard box, or sand, or bath toys, etc.)
Will using signs or a communication board depress my child’s spoken language?
We actually do know the answer to this

- NO. In fact, just the opposite:
  - Having more success with communication actually tends to foster spoken language (if the child has the capacity)
    - We’ve been able to document this for years, with children who are learning sign, and now, with more modern “tech”
  - Even speech-generating devices don’t stifle speech development.
So, should I teach my child “signs”?

• Signs are not easier to “learn”, but they are easier to “teach” and then reinforce

• For neurotypical kids, hands mature before the vocal tract, and so kids can use signs slightly before “words” – but there is no lasting benefit

• For kids with production limitations, signs (or even PECS cards) can be a useful transition to spoken language
If your child is given a “communication system”

• Its benefits are maximized if it is used around the house –

• It’s not a therapy that should stay in the school room

• And it’s a therapy that should adjust as the child gets better at using it
  – Going from simple to more complex
Our family is bilingual (e.g., Spanish/English) – what language(s) should we use?
Can you teach a baby to read?
It depends on how you define “reading”

• Even dogs, birds and sea lions can “read” words on flash cards.
  – This is not the reading that fosters and extends learning.
Things that actually help children learn about reading and how to read

Books books and more books!
As work done in the Department (Huang, Worthington) and elsewhere shows, true reading requires:

- Awareness of sound-letter correspondence not normally seen under age 4
- Some knowledge of the grammar of the language and its vocabulary in order to get real comprehension of written material
TV/computers: friend or foe?
Moral:

• It’s not the technology: it’s what you **do** with it
  – It’s OK to read with your kid over a tablet
  – It’s OK to talk about Sesame Street or Dora while you watch together
Public concerns: The “Word Gap” (Hart & Risley)
Efforts to cure a “Poverty of Words”

How Providence Helps Kids Speak and Learn

The Providence Talks program uses digital recorders to count the number of words children are exposed to at home.

by Melissa Delaney

Melissa Delaney is a freelance journalist who specializes in business technology. She is a frequent contributor to the CDW family of technology magazines.

Providence, R.I., Mayor Angel Taveras has turned to mobile technology to get young children ready for school. Instead of tablets, however, his program is using word pedometers. Because research shows a strong correlation between the number of words kids are exposed to in the home and their academic success, Taveras’ office in February launched the Providence Talks program, which records families for a day at a time, then shows them how many words each person in the home speaks.

The program, which won the $5 million grand prize from the 2012 Bloomberg Philanthropies Mayors Challenge, also gives participants ideas and resources for increasing conversation in the home.

We are exploring similar possibilities in local Title 1 schools/communities
Some ideas for enjoyable reading on these topics:

- Einstein Never Used Flash Cards
- How Babies Talk
- The Scientist in the Crib: What Early Learning Tells Us About the Mind
Some additional reading/references

- We can get you copies of these materials if you’d like to read them:
Questions?

For more information, or references, write me at:

nratner@umd.edu

Thanks!!!