How and Why I Taught My Toddler to Read

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Introduction: why this essay

Can we teach our babies to read? Yes. Should we? Probably.

In this essay, I'm going to try to convince parents that it is possible, and may be beneficial, to teach their children to read even while they are babies or toddlers. I also have remarks for researchers throughout. First, I will explain how I taught my own little one, beginning at age 22 months, and introduce some of our methods. Then I will answer various general objections to the notion and practice of teaching tiny tots to read.

You might have heard of "baby reading" from the infomercials for *Your Baby Can Read* (*YBCR*), or maybe an acquaintance bragged about her 3-year-old reading, or you saw some amazing videos on YouTube. But I'm going to write this as if you had never even contemplated the idea of teaching such a young child how to read.

The suggestion does sound admittedly bizarre at first. You would probably be justified to dismiss it without a second thought, if it were not for stories like my little boy's. At 18 months old he knew most of the alphabet; a few months later, I decided to start teaching him to read, using certain methods; by 2½ years old, he was reading at the first grade level; at 3 years 4 months, he was reading (or at least decoding) at the fourth grade level; and shortly before his fourth birthday, he sounded out the First Amendment of the Constitution. As evidence of this progress I submit this video. As I first publish this, in December 2010, he is 4.5 and

capable of decoding (not comprehending) some of my old philosophy books from college.

By now, many people have heard of *YBCR*. Fewer know that there has a been small movement to teach babies to read, since Glenn Doman published the first edition of *How to Teach Your Baby to Read* in 1964. Doman has made a lot of claims—either inspiring or extravagant, depending on your point of view—about the potential of children. Regardless of the rhetoric, I'm convinced that thousands of children have been taught to read at surprisingly early ages by following his and similar methods. More recently, Robert Titzer discovered after making some videos for his baby daughter that she was able to recognize the words from the video even at the age of nine months. Based on these videos he created *YBCR,* which again appear to have helped very many tiny tykes to learn to read. Whether they actually have done so is something I will discuss below in detail.

But why write a long essay on this topic? I have three reasons. The first is that the phenomenon needs to be discussed in a way understandable to the public. I want to share what I've learned with parents. With the *YBCR* phenomenon, and especially with all the YouTube videos of small children reading, I gather that there is a lively and growing interest in the whole notion of teaching very young children to read. But there is not very much objective information out there about the topic. You can find blogs, articles (this set of pages from BrillKids.com is excellent), and videos by people who are in business to sell baby-reading materials, and other comments from parents and child development students who are skeptical and disapproving of this movement. You can also find some quite critical essays online and book discussions from scholars in the fields of child development, psychology, and education. (See the Bibliography.)

What is largely lacking, on both sides, is hard-nosed science or even very careful analysis. I will try to remedy these deficits by offering a very detailed case study and some in-depth discussion.

I decided post this essay for free online. I've done this sort of thing before, and it's one of the great things about the Internet: people just like to share their knowledge, especially when they perceive a need. I like the idea that I might help other people by what I write, and also that I might spark a deeper, better-informed discussion of the issues.

The second reason is to intrigue psychologists, reading specialists, and other relevant experts with my own case study and with facts and arguments that they may have not considered. I would be delighted if this paper inspired some serious research into the issues raised here.

The third reason for the essay is to announce that, and explain why, I and the group of people behind WatchKnow.org are helping to arrange one of the first careful studies of the phenomenon of very early reading, and that I am, as of this writing, in the design stages of a large set of free multimedia reading tutors for very young children.

A little about me and my background. I work from home and spend much of my free time helping to educate my first son, who is now 4½ years old. Don't get me wrong, please—he spends most of his day playing. But at mealtimes, bedtime, and occasionally at other times, I teach him stuff. I have a Ph.D. in philosophy and a long-standing interest in educational theory, but no formal training in education and only a little in psychology. I co-founded Wikipedia and went on to get Citizendium.org and then WatchKnow.org started—all non-profit, educational sites. I am not selling any products and have no other business relationships or financial incentives to teach toddlers to read, nor do I push just one method, such as Doman's or Titzer's.

Actually, I'll be explaining in most depth the method I've developed and used with my own little boy, which is based on phonics. But please do not get the idea that I am pushing this method, either; I am offering it only as a data point for you to

consider. I actually used a combination of methods to teach my boy to read. First, I thoroughly acquainted him with the alphabet and got him used to the idea of sounding out words with refrigerator magnets. Next, I started showing him flashcards (words plus pictures) arranged into increasingly difficult phonetic groupings, in a systematic order. About the same time, we started watching *Your Baby Can Read*—I am glad that I was able to put aside my misgivings about the off-putting hype surrounding *YBCR* and Doman's method. Both before and after the most intensive "teaching" period, when he was two, I read huge amounts to him, which he liked. After I started teaching him to read, I made a point of always running my finger under the text as I read to him. That sums up our method, but I'll explain much more in Part 1.

I freely acknowledge that I am not an expert on "baby reading" (few experts on that specific topic exist). But I've thought and read a lot about it, and I think I understand the basics of the phenomenon well enough to write this essay. Besides, I'm mostly just reporting on our experience in the first part, and I will tell you when I am on thin ice, and when I'm disagreeing with the experts, in the second part. Indeed, you should be forewarned that the views I express, and perhaps *some* of the educational activities we've done, are contrary to the conventional wisdom of the child psychologists and educationists. If you expect a mere summary of expert opinion, you might as well stop here, because I don't defer to the experts nearly as much as any "sensible" person would. (People familiar with my reputation vis-à-vis Wikipedia and Citizendium might find this surprising.) But I do follow the evidence to the best of my ability, and when I see evidence that does not jibe with conventional wisdom, I do not simply throw out the evidence.

By the way, I should note that it is perfectly consistent with much of expert opinion to foster the literacy of children from a very early age. I am agreeing with the experts when I recommend reading a lot to babies, using and explaining about many words,

and in other ways fostering a language-rich environment. It is not even unheard-of to try to foster early reading, as J. Richard Gentry recommends in *Raising Confident Readers: How to Teach Your Child to Read and Write—from Baby to Age 7*. Similarly, one prominent Australian reading expert, Trevor Cairney, is both a critic of *YBCR* but also enthusiastic in his encouragement of parents to foster the natural development of literacy from an early age, even if this naturally leads to early reading. What many expert critics seem to oppose are intentional attempts to teach babies to read through the use of videos and flash cards that are specially designed to teach them to read.

Anyway, if you find any factual errors in this essay (I'm sure someone will be able to), let me know at sanger@watchknow.org, and I will post corrections. I've worked on this essay for over two years, off and on, and had feedback from many people. If you just want to argue with me, please don't mail your comments just to *me;* post something on your blog, or on my blog, or post your comments on the Yahoo group TeachYourBabyToRead or the BrillKids forum, and send me a link to it. If you send an email, I can't promise I will respond, because I'm pretty busy, and I would feel bad about not answering you. But on the other hand I'm very interested in this stuff these days, so maybe I will.

One last thing. Whatever I may sound like in this essay—which, I hope, is properly skeptical and thoughtful—I want to assure you that I do not believe I have all the answers. This is not meant to be a complete method, much less a general position statement about all topics in early learning. It is an *essay,* which means a try, one that will be very much open to revision as I learn more myself.

Acknowledgments

I sought feedback from people with a wide variety of views and training, including mothers with early readers, school teachers, educational product designers, and experts in psychology and other fields. While some of these people support very early

reading, others disagree with me. None are responsible for my errors.

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PART 1: How my little boy learned to read as a toddler

In this first part of the essay, I will detail how I have taught my own son how to read, and say something about other educational activities that have supported his reading ability. My point is *not* to suggest that this is the only way to teach a young child to read. The point of this is to provide to the public and relevant research communities at least one detailed example of how a child was taught to read at a very early age. Frankly—and I seriously mean no disrespect when I say this—but I have seen all too much evidence that many reading experts simply are not familiar with what goes on when a very young child learns to read. I hope this will provide them with a detailed view into one case.

I'll be addressing the questions of *how* it is possible to teach young children to read, and *why* one might want to do so, in Part 2 and the conclusion.

1. Early literacy activities

We have read virtually daily to our son since he was 3 or 6 months (I don't remember exactly when we started). We typically read several books daily—fewer as the years have gone on, because the books grew longer. As a baby, he usually just sat there and took it all in. He loved sitting on my lap as I read a dozen board books to him. Before he was a year old he was turning the pages. We began with baby books and moved up, around 12 or 15 months, to short

simple stories like *Clifford the Big Red Dog* and the simplest Dr. Seuss. We never stopped reading lots every day, at least an hour a day, and in the first few years often over two hours (but spread out throughout the day).

Our first books included, importantly, many ABC books and ABC flash cards, which we read each many times. We especially liked the Dr. Seuss ABC book. This led to him learning his ABCs at an early age.

But introducing the alphabet and other mechanics of written language was only part of the challenge. There was also vocabulary, or the concepts language conveys. Many of our first books were "baby concept" books, teaching things like types of animals, colors, textures, and so forth—the usual sort of "nonfiction" books one finds in a baby book section. We used quite a few Priddy Books and Usborne baby books, and we did a lot of other commercial flash cards as well (but we still had not learned about Glenn Doman). Exposure to concepts and vocabulary in books was surely more important though. From early on I figured that a baby could learn basic concepts quickly from repeated exposure to them in "baby concept" books (and of course through encounters in the physical world as well). I think I was right. Basically, whenever we read, I *explicitly* defined words I thought were unfamiliar, in the simplest possible terms (beginning, of course, by pointing to pictures as I said the name of the thing in the picture). I actively sought out books that introduced new areas of vocabulary that would expose him to as many different areas of knowledge as I could find, at his current level of comprehension. I am sure that this proactive and cumulative vocabulary building is one reason why he could (I believe) appreciate some quite advanced books at a very early age. But more about book-reading strategy below.

When he was a year old or so we bought him the LeapFrog "Alphabet Bus" (there are many products that do the same thing). We noticed he was, by 18 months, pressing the buttons in

interesting patterns, systematically exploring. At some point we thought to ask him, "Where's the S?" and he would press the S. So we discovered he could identify all his letters by 18-20 months. (By the way, if I had known about it, we would have been using the free Starfall.com alphabet pages, which are wonderful.)

I then started hunting around online for information about when kids start learning the alphabet. I was surprised to learn that it was not at all unheard-of for children to know their ABCs by the time they are 18 months. (Age 3-5 is closer to the norm; but obviously it depends on whether you expose your child a lot to ABC books and the like.) Then I asked myself: if children can learn the alphabet at such an early age, then considering that alphabet learning is a key element in "reading readiness," is it actually possible for them to *read* at such an early age? That sounded very unlikely to me, but that didn't stop me from looking online for information. I discovered through searching on YouTube that some kids were, apparently, taught to read as babies. This was hard for me to believe, but I was pretty impressed by the videos that purported to be of babies reading. (This was around January 2008.) After hours of exploration there and elsewhere online, it was hard to deny that something was going on. I wasn't sure what was happening and whether early reading was a good idea, even if it was possible. Even after I decided to give it a try, for a long time I was a skeptic, even despite the accumulating personal evidence. Nearly three years on, I now have many fewer doubts, but I still try to take a properly open and critical approach to the subject.

Shortly after first seeing those YouTube videos, I decided to tell him that the big, bold word "GO" on the cover of one of his favorite books was read "guh-oh, go." He loved the book in question and started enthusiastically saying "Go!" whenever he saw the book title. So we began with a single word, "go," which was really easy to understand and extremely high-interest (he already loved cars and trucks). I don't remember this specifically,

but I believe that tiny success is what got me thinking that we should try refrigerator magnets.

So, when he was around 20 months old or so, to see what else he might be capable of, we got him a couple sets of refrigerator magnets. We played with these. I would show him, for example, B, A, T, and then I would say the letter sounds and have him repeat them. Then I would put them together slowly, then a little faster, and finally blended together in a whole word. I would encourage him to repeat after me at different stages, but mostly it was me explaining things to him. We stopped immediately if he lost interest. After some time, he actually spelled out and sounded out "dog," in imitation of me. That convinced me that he might be capable of learning to read, as those children I saw on YouTube doing, so I decided to take the next steps.

2. An eclectic method of teaching a small child to read: summary

Listening to an enormous number of books and doing various other pre-literacy activities was essential preparation for my son to learn to read. When I started to teach him to read at age 22 months, we did three things at once: videos, reading flashcards, and reading books with the finger-under-the-words trick. I'll explain each of these briefly in this summary section, and then elaborate in later sections.

First, the videos. When he was about 22 months, we got the first *YBCR* video. My boy absolutely loved it, so then we got the full set. He demanded to see the videos as often as possible (but we almost never showed a video more than once a day, and my wife slowed it down to every other day). Still, he got through the set of five in about two months and knew all of the words cold, no problem. Then he was bored with them.

From online conversations I got the impression that the videos hook many little kids who try them. The videos may look

amateurish to you, but remember that kids might just love what you find incredibly boring. The songs are nice, but it's not just that. I think the arrow moving under a word as it is being read excites kids. It shows them that all these puzzling squiggles they see around them, which Mommy and Daddy take so much interest in, actually match up with words they hear spoken. Also, the words themselves are chosen to be accessible and interesting to babies. After the word, a short video clip is demonstrates the meaning of the word, which is also very welcome to babies, I think. So the production not only teaches children how to read certain words, it clarifies the meanings of the words. I think the reason my son and many other children are excited by these videos is that they essentially *make sense* of their linguistic world—all the written language around them—in a way they've never or rarely experienced before. The videos connect together print and spoken language, and explain very clearly and entertainingly some of the basic concepts they have been learning. Anyway, whatever the reason, my little boy loved them and soon learned all the words in all the videos (a few hundred, I think).

Starting around the same time, maybe a week or two later, I started making flashcards. At the time, I didn't know about Glenn Doman except, maybe, from a few articles about his methods online. Doman arranges flash cards by subject. But I figured that if we were going to do flash cards, I might as well arrange them phonetically, as this would be most likely to teach him the rules of phonics. I found some suitable-looking word lists in the back of Rudolf Flesch's *Why Johnny Can't Read*. (I had no better reason for choosing this volume than it was what I had on hand; I couldn't find any comparable lists online.) It was fairly easy to make the cards. On one side of the cards, which are about 2" by 4", I put the word in large print, and on the other side, a picture representing the word. I printed four cards per 8.5 x 11 page.

After about six months, we had gone through hundreds of words and over half of Flesch's phonetic rules. My boy gradually learned to read (sound out) many hundreds of words. I was careful to pick

words, from Flesch's word lists, that I knew he understood when spoken, or that I could explain. I did explain quite a few, so it became a great vocabulary lesson too—his vocabulary increased by leaps and bounds, as he used words that were on cards. I ended up making over 1,000 cards, and in the end he was reading thousands than that, even before we finished using cards, about a year later or so. (I have more details about this flashcard method below.)

We were, of course, continuing to read a lot to him. Shortly after starting the flashcards and videos, I started moving my finger under the text of books as I read them. I am convinced that this made a huge difference. He seemed to be very interested in the text that was next to my finger, and was evidently following along much of the time—I sometimes looked at his eyes and I could see that he was usually following along closely (still does, at age four). Another reason I know that he was following along is that I occasionally misread a word, and he corrected me—even when he was two years old. In fact, when I *intentionally* misread a word, he almost always caught it and corrected me. (As he got older, he became much faster and more impatient when correcting me; he's become very exacting, even about pronunciation, and always wants to look up unusual words in a dictionary app with audio pronunciations.)

There is actually a book, *Native Reading* by Timothy D. Kailing, which advocates teaching children to read with the finger-under-the-text technique. It was Robert Titzer who stressed this both in his materials and privately to me. I now know that it's an old trick.

I am virtually certain that my own boy has advanced his reading ability far beyond the videos and flashcard words by following along with me in the text. I think it helps, also, that we steadily increase the reading level of books, especially nighttime stories. We read all sorts of things at meals, but before bed we started reading chapter books; we started that regular, often difficult, nighttime reading just before his third birthday.

Among many others, by his fourth birthday, we read *Stuart Little, The Trumpet of the Swan, Pinocchio,* and *Charlotte's Web* (all these in the original versions) as well as the first 30 "Magic Tree House" books. He has especially loved the "Magic Tree House" books—my hat is off to Mary Pope Osborne for creating a formula that so consistently results in books kids love to read and which teaches them so much. He loves some of the more advanced books, *only in moderation,* despite there being all sorts of words that I have to explain. He listens to my explanations patiently and with evident interest, and if I don't explain a word he wants explained, he asks, or just looks at me expectantly (he has an "explain it" look). I believe these explanations are necessary in order for him to be willing to listen to such books.

There were a couple of early literacy websites that we used a lot as well: Starfall.com and Literactive.com. I highly recommend both. They both have many interactive, multimedia stories and poems that allow the student to click on word to hear their pronunciation. This emboldened my own little boy to read these stories to me, the way that other little readers might read the little *Bob Books* (which I don't have but have seen recommended). I found it strange that, while he wouldn't want to read a Dr. Seuss book that was well within his ability, he would willingly read a Starfall or Literactive story that was no easier. I think it was strictly the difference in medium and our habits of using them; I always refused to read Starfall or Literactive to him, and he was in the habit of reading them to me, so he didn't object. Both of these websites are very nicely leveled, too. (They have inspired me to design and, I hope, produce an even bigger educational site like them, an online multimedia encyclopedia for small children. This is currently just in the planning stages, so don't get too excited yet.)

Other tools we've used with good effect are the LeapFrog refrigerator phonics (the 3-letter kind), and a similar 4-letter LeapFrog device you can plug into the TV and play some

software with. I feel that the LeapFrog "Tag" system would have been helpful in the early months of learning to read, but we purchased it after he was well on his way, so it didn't get much use.

I think these methods and tools have together created good results. As I first draft this section, in December 2009, he is three years, seven months old and, based on tests I've found online, is decoding text (not to say *reading*) at about the fourth grade level. It has been about 21 months since he started reading his first words on the refrigerator. Very gradually over this time, he has taken to reading books on his own, although for the most part he just flips through and reads pages at random. Occasionally he'll get out a book and read it to his mother, although he doesn't like to read to *me* too much. In all honesty, I must admit that he seems to feel "on the spot" when he reads to me. Mostly he reads silently to himself. We have often looked at his eyes as he is looking at the pages, and they are making saccades across the page and from top to bottom. He goes in phases in which he is reading all day long and books are covering the floor around the bookcases, and other times when he only pulls out a few, and focuses on his toys (especially Legos) or whatever. That is not something we try to control at all, although I have noticed that when we take down his Lego drawers, he prefers the Legos to reading. We have an enormous collection of books at home (on his fourth birthday, we had four bookcases overflowing with children's books).

Obviously, it is a hobby of mine to read to him and teach him in other ways. I can't think of a better, more gainful hobby, however, and I recommend it to all parents of little children. It's also been a lot of fun.

I honestly can't say for certain what was most effective in teaching him to read the way he reads now—whether it's all the book-reading, *YBCR,* the phonics flashcards, or even the websites like Starfall. But it did seem that after we introduced a new phonetic rule (i.e., started a new set of cards), he was reading better. So if I

had to pick one, it would be the phonics flashcards. But this is not certain, because he's made very steady progress, and he picked up a lot of words that he couldn't sound out based on the rules I had "explicitly" introduced. So I think he's learned a fair bit of phonics "implicitly," as Titzer says in his materials, and *YBCR* certainly helped with that. I also think that following along with a *lot* of text, as I moved my finger under it, was extremely important, and quite simply being exposed to a lot of books surely expanded his reading ability as the other methods could not. Still, for the reason I gave, I think the phonics training with the cards has been the single most essential element of the program, in the sense that they best explain how he became a reader quickly. Basically, in the space of six months, he went from being a non-reader, to reading CVC ("dog") words almost right away, to reading multisyllabic words, "silent e" words, etc. In another year he was decoding at the fourth grade level or so.

Here is a table summing up the different things we did and the function I think they might have performed in our program:

Program element	**Brief description**	**Speculated role in the overall program**
Phonics flashcards	Showed over 1,000 hand-made flashcards, word on front and picture on back; first sounded out word for child, then prompted child to state word, then gave card to child to look at word and picture.	(1) By providing many examples of each of dozens of phonics rules, grouped together, the cards allowed my boy to infer English phonics rules in a systematic way. (2) The order of the cards provided an in-depth (but painless) acquaintance with the internal structure of words and spelling, demystifying "the whole word." (3) As a bonus, the very careful, analytical attention to the sounds that make up words caused my boy's enunciation to improve by leaps and bounds; improvement in this regard began almost immediately.
Your Baby Can Read	Watched the *Your Baby Can Read* videos once a day at first, then less, over a period of about three months, beginning at age 22 months.	(1) Gave my boy immediate and early sense of comprehension and mastery over a small amount of material, increasing his motivation to learn. (2) Effectively ingrained the difficult but fundamental concept of letter-sound connection. (3) Provided an introduction to (but not systematic training in) phonics.

Reading, pointing, and explaining	Read copious amounts to child daily, from a wide variety of books and media, beginning well before 12 months of age; pointed at words while reading; explained the meanings of words in very simple terms.	(1) Reading and explaining words and concepts greatly helped to increase my boy's vocabulary and conceptual storehouse. This is crucial to reading in the full-blooded sense. (2) Pointing at words while reading functioned as an enormous amount of reading practice; the more words he both saw and heard at the same time, the more he understood written language. (3) Beyond just vocabulary, copious reading also familiarizes a child with grammar and pronunciation and other elements of language.

Phonics flashcards and *YBCR* without reading would have meant a much smaller vocabulary and fluency (because reading supplies practice); phonics flashcards and reading might well have worked, but *YBCR* certainly provided an excellent start; and doing just *YBCR* and reading *might* have run the risk of inadequate exposure to phonics, with all the well-known problems that entails. The result was a balanced, diverse program in which I deliberately sought both to teach and support the learning of reading, with language found throughout the day, as part of the "environment" —which as it happens modeled some of the solid recommendations of Kailing's *Native Reading* as well as Doman or Titzer.

3. Phonics flashcard method

I did not teach my boy to read only with flashcards (uploaded here, giant 122 MB zip archive of .doc files), but I do think that they helped quite a bit. Using the word lists from Flesch's phonics primer, I believe these cards made it possible for my son to "crack the phonetic code" much faster than he would have otherwise. Soon after we started, my son did not have the problem, which *some* parents have complained of, of not being able to read words that have not been explicitly introduced. So I thought I would share the method with you. I have little reason to claim that it is more generally effective than any other, but we certainly seem to

have had good luck with it, and this might give you an idea of what is possible.

I understand that the Doman method has the parent introduce sets of words based on familiar subject matters, to keep the child's interest highest. That seems reasonable on first glance, especially as a way to build vocabulary, but it is not the approach I took. I introduced words in sets based on simplest phonetic rule to most complex phonetic rule—that is how I would describe the word lists I used. So we began with the short vowels (the first set includes short-A word like mat, hat, Pam, Sam, and so forth), then moved on to -ck, then other two-consonant blends, and then on to more advanced phonics rules. I did not introduce words that I could not explain with the help of the picture on the back of the card, but on the other hand, I did not shy away from unfamiliar words if I thought I could explain them. As a result, with this program, his spoken vocabulary shot through the roof. He started talking a lot more, reproducing his new words, and with markedly better diction. Surely his speaking ability would have blossomed during that period without such training, because the training began after age 22 months, but I suspect his vocabulary wouldn't have grown as quickly, because many of the words he used, he learned from my cards (not surprising, given that there are over 1,000 words on those cards, all together). This is just my unscientific impression, but I believe his learning how to read words phonetically has made a much more prolific and precise *speaker* out of him.

It is worth pointing out that the age at which I started phonics flashcards with him may have mattered quite a bit. The Doman and Titzer methods recommend starting to teach babies as young as, say, three or six months old. We could not have used my method at that age, because part of this method is to have the child say out loud the word that is written on the card. But since we started at 22 months, I could be sure that he knew the words. I could also be more confident that he understood the meanings of all the words I introduced. It was also a great age to start this

training because he was not nearly as independent and willful as he would become, as a typical two- and three-year-old.

Here is how I taught my boy using the cards. The first time through some cards (typically, I would show him 8 or 12 at a time), I showed the card and simply read the word on it, then sounded it out ("cat...kk..aah...tt...cat") while moving my finger underneath the word. Then I sounded it out a little faster, and a little faster still, then put the whole thing together. I would ask him to say the word, too, which he was almost always game to do. Then I turned over the card and gave it to my boy, and talked about the picture on the back. (For verbs and prepositions, and other words difficult to "depict," I wrote a short sentence including the word, and put it under a picture illustrating the whole sentence.) Sometimes, if the word was new, I would try to explain the meaning of the word in as simple terms as possible. Words I felt I couldn't explain, I didn't use. Looking at the picture was his favorite part. Sometimes he would naughtily crumple the cards, which are just folded over strips of regular printer paper, but we let him do that—it doesn't make the cards less useable. (And if I thought the crumpling was because he was frustrated or tired, as opposed to simple fascination with scraps of paper, we'd stop.) I was delighted that my boy generally liked the cards, and was pretty enthusiastic about them at times. Not all children may be this way, but other parents have reported a similar reception. Indeed, several of them have told me that my cards were what "did the trick" to move their children past word memorization to full-fledged reading. Anyway, obviously, kids are all different and of course I know that not all may take to this method.

In the first month or two, the second time I showed him a set of cards, I would sound them out for him ("kk...aah...tt") and ask him, "What's that say?" Then he'd usually tell me, and only then I'd turn the card over. That worked pretty nicely. (This is one reason why my precise method could not be done at the age of six months.) After a few days of exposure, he was able to read the cards with no hints or prompting.

We did not move onto a new set of cards until he had "mastered" the previous set of 8 or 12, i.e., he was reading all of the cards in a set without mistake or much of a pause (or me sounding them out at all). There were around 25 words per set, but, again, I did not present these all at the same time. That would have been too much—overkill. As Doman advised, to keep it fun, sessions should be kept short and frequent rather than long and infrequent. Some days my son liked to look at cards through a whole meal, or 20-30 minutes, but that was very rare; most sessions were 5 to 10 minutes, and often they were just a few minutes.

In the first several weeks, he began using cards with some difficulty. He definitely had to go through a period where he was fully mastering the general concept that written words are matched to spoken words. Grasping this is a milestone that reading experts make much of. I tried to make it fun for him in whatever way I could. For example, on the back of "tell" there is a picture of two women gossiping, one whispering into another's ear, and I added the caption, "Let me tell you." Then I whispered in his ear and said, "Let me tell you!" and he got a huge kick out of that. Anyway, at first, he went through the cards very slowly. But going through a few sets, he started getting the game. If he ever had any trouble with a word, I would simply read it for him. The aim was always to keep it low-pressure. Sometimes I asked him sound out the words himself, but he wasn't as interested in this, so I ask that too much. He would usually just read the word right away, or else wait for me to sound it out, and then say it himself. Whether sounding it out himself silently, out loud, or having me do it, he evidently got the idea.

At one point in the first month, we had an exchange that went like this:

"What's this?" [I point at the word "cat".]
"Cup."

"Nope, look at it."
"kuh...aah...tuh...cat!"
"Good boy!"

After a month, he had totally glommed onto the idea. So then I started out new sets of cards (and so new rules) by encouraging him to sound out the words himself. Of course, I always gave him the rule, e.g., saying " 'qu' sounds like <sound>" and helping him out, then praising correct answers. He got to the point where, the first time he saw a word, he needed only a little help from me sounding out the word. Once one of us (or me sounding out the first bit, and him finishing it) had sounded out the word, he immediately said it naturally, no problem.

I've noticed that some beginning readers read by slowly and carefully sounding out words. This is great, and it is surely a step toward fluent reading, but it is not itself fluent. One mother online complained about this "problem" and asked me how she can get her child to read more quickly. I told her that I didn't really know, but I think the reason we never had this problem is that *I* usually did the sounding-out. If you always or usually ask the child to do it, he or she is learning to do *that* and might then do it dutifully. But if you usually do the sounding-out, I hypothesize that the child's mind will, like a sponge, absorb the letter-sound connections and internalize the sounding-out. If you let the child "tell the punchline" (put the sounds together), then the child is practicing reading the word quickly. Obviously I don't know, but I speculate that that is what happened with my son.

I want to stop here to underscore that I taught him to say "that's enough." If he said "that's enough" when we were doing cards, which he did sometimes, then we would stop instantly and not do any more that day. If he seemed reluctant for a few days in a row, we'd take break for a week or so. If we then came back to cards and he still wasn't interested, we'd take another break for a few weeks—even a month, once or twice. Then we'd come back to them and he'd be all interested again. In fact, he was usually quite

comfortable with the cards, and regularly asked for "new cahds." I can't expect it would work that way with everyone, but it worked that way for us. This gentle approach was inspired as much by Glenn Doman as anyone. Quite contrary to the "pressuring parents" stereotype, Doman emphasizes the importance of "keeping it fun" for children, and never forcing or testing them, and that stuck with me. Whatever you might say about Doman's methods, this point is (I think) broadly speaking correct and deeply important.

After a couple months—after doing ten of the word lists, or so—I don't think I sounded out the words much at all after the first time through a set. I would sound out the words the first time and after that he'd be able to figure it out himself, i.e., he would say it. Sometimes he would stare at a word without saying anything for a while, then he'd just come out with it. I'm pretty sure he was sounding it out in his head. By age 3½ he was usually reading silently—and very fast, as far as I could tell. I watched him reading books, and I looked at his eyes moving very quickly over the page.

After one longer break from doing cards, a few months after we started, we decided to review all the cards we had done before. I think this particular review really helped a lot, because he read much more confidently after that and for several months afterward we occasionally went back to old cards to review. It seems obvious that such reviews could have helped refresh and solidify his knowledge.

Beginning several months after starting, I also started asking him to read whole sentences, then short pages, and then whole (very easy) books. I always made sure that he knew all the words. So he got more practice that way, and I of course helped him and did not insist or push. He was never eager to do this except in small doses.

About six months after he had started, he made another major advance. He started sight-reading many of the new cards, on the first try, even for rules he hadn't been introduced to before. If he couldn't get a word, I started sounding it out for him, then he would finish after I slowly sounded out one or two letters. At this point he could decode well over 1,000 words, probably more like 5,000. By the time we were to word lists #20 to #30 or so (over halfway through), I almost never had to sound out words in advance, he was simply reading brand new words, illustrating brand new phonetic principles, without me saying or helping much at all. I would just explain the new rule, maybe just giving an example or two—and maybe even this wasn't necessary—and then he would just read the new words perfectly the first time. But we kept doing the cards anyway, to solidify his phonetic understanding. I was glad we did that solidifying work, by the way; I think it helped.

As his decoding skills improved, his interest in the cards waned, and we gradually tapered off using them. The last time I was regularly making new cards was a little over a year after we started. Since then I did make one set of cards, in the interest of completeness, but I felt rather silly doing it, because he knew the words perfectly well—it was pretty pointless. So that's why I never finished going through all of Flesch's word lists. I never made cards for the last 3-4 lists or so. If someone else wants to finish my work, I'll be happy to upload it.

There are some who might still be skeptical of my claims, and insist that my son was not learning phonics and was only memorizing individual words. After all, I did show and read to him over 1,000 cards. I have encountered such skepticism in several places (an example); the toddler brain is supposed to be *incapable* of learning phonics, so apparently we did the impossible. In response, I want to emphasize that while he often recognized words immediately, without sounding them out, we saw all sorts of evidence that he was indeed sounding out words from the earliest months of his reading. His first words read were words

that we spelled and sounded out together with refrigerator magnets. A few months later, we sometimes heard him explicitly sound out parts of words, but not usually entire words. I think he found that tedious. If I asked him to (I only rarely did), he might impatiently sound out an entire word, which he did pretty well. He sometimes read unfamiliar and not-perfectly-phonetic or more advanced-phonetic words incorrectly, according to the simpler phonetic rules he'd learned, which means he must have been sounding the words out silently. Since those early months, his advanced reading ability, and occasional phonetic rule-following miscues (which go on to this day—as a 4-year-old he quickly misread the name "Thomson" with a θ sound), makes it even more obvious that he has "cracked the code" of phonics.

Frankly, the whole process was pretty painless, and I recommend it. But I realize, and you should know, that I am not a reading expert. I hope the above account makes it more plausible, if you've had doubts, that it is possible to teach small children phonics. If your child is old enough (obviously, my particular method can't be used with kids whose mouths/voices can't make the sounds) and you don't have any philosophical objections, try it and see if you have similar luck. Of course, your mileage may vary. I'm always gratified to hear from those who have used my cards and had an experience similar to ours. My wife, who patiently witnessed the whole process, was totally convinced that it was my cards, more than *Your Baby Can Read* or anything else, that taught our son to decode written language.

4. Your Baby Can Read

Note: I do not have any financial stake in the companies that sell Your Baby Can Read. I've conversed with Dr. Titzer but as a highly interested and curious customer, and later, to help organize an independent study of the efficacy of the videos. He also commented on this essay before I posted it. I do not maintain that one must *spend $200 on videos to teach a small child to learn to read. If you can't handle the expense, there are other ways to do it. You might be able to find copies at the library. Also, there are other DVD*

and software programs that purport to do something similar, such as the Brillkids.com "Little Reader" (which I've used—it's a good software implementation of the Doman method), and the Monki See Monki Do and Tweedlewink programs (which I haven't seen yet, but which are widely touted by the interested community). Finally, there is the Doman method itself, which can require a lot of work out of the parent, but which is free. Some parents use PowerPoint presentations to achieve a similar effect to Doman's "bits" cards, and quite a few of such PowerPoint presentations are available for free online, for example at BrillKids.com.

At about the same time I started making cards (when my son was 22 months), we started watching the *Your Baby Can Read* videos. This is a series of five DVDs, marketed for the use of children through age five, with accompanying media like some very nice flashcards and books. We bought the first DVD and my son absolutely loved it. Then we got the others, and he went through them all in about three months or so. For the first few months he was desperate to watch them as much as possible. Just before his second birthday, he was constantly saying "read!" and later on "your baby can read!"

The videos basically consist of printed words in very large font size, spoken while an arrow moves under the word, followed by a moving picture of the thing that it is a word of, displayed while a spoken sentence or two using the word describes what's happening in the video. For a few minutes at the end of the videos, there is some attempt to teach some words in an order that better conduces to phonetic understanding. But I'm convinced these videos helped him to learn to the basics of word decoding. After about two months, we had gone through the whole set of DVDs, and after four months, he could almost instantly read all the words on all the accompanying cards (very similar to the cards I make for him, and also similar to Doman flashcards).

For us, these videos work as billed. My son was able, with written words alone as a cue, to recognize and repeat the words out loud.

I was very interested in the fact that, in the first few months, he was able to read the *YBCR* words much more quickly, and with less difficulty, than the words I was teaching more systematically with my phonics flashcards, even though the words on my cards were often much simpler ("dog" and "kick" versus "elephant" and "hippopotamus"). But this advantage dropped away after six months or so, and after that he was able to read unfamiliar words on new cards very quickly as well.

For a while I thought that the DVDs were only teaching the words on the DVDs, and did not really help my son to learn anything else about reading. But I later came to the opinion, which I am still not absolutely sure about, that they did help him to learn some phonics patterns. This is a claim that Titzer himself makes, and which Doman has made as well on behalf of his own program. They both say that a child basically gets experience through multiple examples of phonetic rules, and then naturally infers the rules by induction. That this should be possible need not be *too* surprising, considering that this is a well-documented phenomenon for slightly older children (ages 3-5; see Durkin's *Children Who Read Early*) and that babies naturally learn many other linguistic rules, such as how words are chunked (where one word ends and another begins) and the basic rules of grammar, inductively and without explicit instruction. In any case, I think the videos probably made my son much more comfortable with the whole notion of matching sounds to written marks. Learning to recognize long words like "hippopotamus" must also give a child some confidence, and that's important.

The above analysis is entirely speculation, but I have to doubt that the *YBCR* videos, *by themselves and without follow-up* in the form of much reading (at the very least), would give most children the ability to read. Studies soon to appear may show something different, and Titzer privately expressed thoughtful disagreement with me on this. Among other things, he wrote me, "We have thousands of parents who have written to say that their babies and toddlers learned to read from using *YBCR*. Only a few of

these parents ever mention that they did additional reading activities." But surely, any parent who is motivated to show *YBCR* is probably also going to be motivated to do a fair bit of reading as well, and possibly some other language-building activities. Of course they *should,* anyway.

In correspondence, Timothy Kailing (the advocate of pointing-while-reading) made an interesting, related point. I can't say it any better than he did:

> While many children can learn phonetic rules implicitly from a whole word approach, I think, if clumsily taught, some children could indeed at least go through a stage where they are "barking" at words [reading without comprehension], as you called it. My main concern with videos and flashcards is that it could, for some children, encourage an idiogrammatic [whole symbol-based, not phonics-based] level of understanding that, while probably transitory and not harmful for most children, is certainly quite independent from the sort of understanding that leads to fluent reading. Using a small set of words or the same video over and over, in a highly stylized setting, increases my concern. Your emphasis on how you used a variety of reading material, methods, and various sorts of literate play are, to me, very important points. And in this context, I have no concerns with flashcards and videos as part of the mix.

5. Reading books

As I said, about 3-4 months after we started teaching him to read, my son could and occasionally did read short, simple, phonics-based stories by himself. It was still amazing to me that, at age 26 months or so, he was able to read through, for example, the entire 20 or so pages of *Blue Train, Green Train,* a very simple Thomas the Tank Engine story (not an original one; we've read many of the originals from a fat anthology, too; highly recommended!). He had

most of those first stories read to him many times in the past, so for many of them there was a question how much he had simply memorized the stories. But we also used the wonderful (and free) Starfall.com website and discovered that he could, with some help and prompting, get through some brand new stories from that site as well. I also noticed that he was more than capable of reading brand new whole sentences and long phrases that I wrote out, if he was familiar with the words. But within a few months he was also sounding out unfamiliar words, phonetically similar to old words. This demonstrates that, plainly, he was neither merely memorizing the sequence of words in the stories he read, nor merely recalling the shape of the words without decoding them.

But the best reading practice he got from whole books did not take the form of *him* reading books to *me,* but the other way around.

Maybe more than the phonics flashcards or *YBCR*, I attribute our success in getting our son to read at an extremely young age to the fact that in his first three years, we sat down and read with him daily, usually many toddler books per day. While the phonics flashcards taught him phonics rules, and *YBCR* completely ingrained the letter-sound connections and gave him the confidence that he could read some words, it was my regular reading to him that helped us to *practice* reading. That is, every time we read a book, he was practicing *his own* reading. How?

After his 24th month or so, I made a point of putting my finger under the word I was reading, so he could follow along with the text if he wished. We still do this; it's no trouble for me, and he still learns from it. This simple practice also reinforced the idea that everything I was saying could be found in those words on the page. I think this has reinforced already-learned words and perhaps even taught him some common words like "the." I never had to teach him "sight words" or "Dolch words" using flashcards or any other explicit way. (Mind you, some supposed

"sight words" turn out to be phonetic, if you review a full complement of phonics rules.)

This is the trick touted by Kailing in *Native Reading,* and even appears in *To Kill a Mockingbird,* where Scout says:

> I could not remember when the lines above Atticus's moving finger separated into words, but I had stared at them all the evenings in my memory, listening to the news of the day, Bills To Be Enacted into Laws, the diaries of Lorenzo Dow—anything Atticus happened to be reading when I crawled into his lap every night.

Here is another trick I used quite a bit. When I got to a simple phrase or sentence in a book, particularly one made of words that I knew he knew, I stopped and if necessary (it usually wasn't) prompted him to finish, which he usually did without too much trouble. After he turned three or so, however, he caught on to my "trick" and would not finish reading sentences, unless I asked him to explicitly, which I then did only very infrequently.

We have deliberately avoided many of the oversimplified "easy reader" books, unless we know that he likes a series, or it looks interesting. We don't have the Dick-and-Jane books, or the many artificial-sounding books written specifically as part of phonics or basal reading programs. We tried a few, but he did not seem very interested. Most of such books are simply not very interesting to children, I believe, and asking children to read from those books make reading seem boring.

I don't mean to say that we didn't use any beginner books, written specifically for their phonetic ease. The Starfall online books are this way, and they aren't "great literature," but my boy loved them probably because of the moving pictures and I think also the sound-out-the-word feature. So I'm not doctrinaire on this point; I go with whatever my boy seems to like. Still, rather than having him read only from the more boring, carefully-leveled phonics or

basal readers, I much prefer my approach, which is to ask him (occasionally, not too much) to read those words, phrases, or sentences that he *can* read in a book that he already likes.

There are several advantages to this. I think it gave him a sense of accomplishment, and let him understand that the words on the cards could be found in books he liked. Reading words familiar from my phonics flashcards in the context of a familiar, well-liked story no doubt helped improve overall facility. I also could see how, as we went through more and more phonetic rules, we could read more and more of the words in the books he already had. I suspect this was behind his requests for "new cards" and the interest he took in cards: the cards were the keys that unlocked his beloved books, perhaps. (I say this poetically, but there is a testable hypothesis here.)

However the books were chosen, it seems extremely important that we combined the cards with large amounts of ongoing reading. The books without the cards would almost certainly not have taught him to read (however positive the experience would have been otherwise), and the cards without the books would have been absolutely hopeless, because otherwise he would not have the interest in and familiarity with all those words.

When he was one and two years old, his favorite books included *Curious George* and *Madeline*. Our first chapter book was *Winnie-the-Pooh* which we read sometime when he was two. Then, just before his third birthday, we started reading chapter books more consistently. *Stuart Little* was one of the first—I was prepared to put it aside for a few years, and I was amazed that it held his attention. We also read *Charlotte's Web, Mr. Popper's Penguins,* the *My Father's Dragon* series, and *The Boxcar Children*. Later on, we were sucked into the Magic Tree House books. Then we read *Little House in the Big Woods, Charlotte's Web* again, *Pinocchio* twice in a row, and *The Trumpet of the Swan* twice.

Though his reading and comprehension level are clearly advanced, we also still read quite a few picture and story books of various kinds. We have also read a tremendous amount of nonfiction. His favorite topics here have included trucks and other heavy machinery, animals (for a while, it was all "muddy pigs" all the time, inspired by Wilbur from *Charlotte's Web*), electricity, and various other topics. But we have read books about virtually every general nonfiction subject accessible to his age. In addition to our own large and growing book collection, we made occasional trips to the library as well.

I say all this not (or not *merely)* to brag, but to point out that you probably cannot expect results similar to those we got from just phonics flashcards or just *YBCR* without being immersed in language that is constantly broadening the child's vocabulary, i.e., by a lot of reading. According to research I can't put my hands on just now, written language has a far greater range of words than spoken language, and even the speech of well-educated people uses a surprisingly smaller range of words than fairly simple books. If you want your child to be able to read many words with good comprehension, he or she must be exposed to those words in the first place.

As I'll explain more further down, this is a point that many reading experts (Jane Healy would be just one example) hammer on: reading without comprehension is not really reading. I can't disagree. I simply do not draw the conclusion that, therefore, children cannot or should not start learning to read until they have "naturally" absorbed more vocabulary. What if, as in our case, by age two a child has been exposed to many hundreds of books about many different topics? What if one takes other steps to improve their conceptual storehouse? Then understanding the typical toddler book is not much of a challenge.

Just one caution, again from personal experience: mix some easy books in with the more difficult ones. It is a bad idea always to "push the envelope" in terms of the child's reading level. Reading

only above a child's level can turn her off to books. Reading a mixture of books, some that are very easy, some not-too-hard-and-not-too-easy, and some relatively difficult is the best way to keep up a lively interest in reading, we found. Say your child is only moderately challenged when you read him *Curious George*. Probably, most of his reading should be at about that level. But he'll probably still be entertained, comforted, and helped by reading much easier books like the *Biscuit* books. He will probably also appreciate some, but not a lot, of more advanced material such as *Winnie-the-Pooh* or the Magic Tree House series. We generally read the more advanced stuff at bedtime—I don't know if that's a good idea but that's the habit we got into. Some mothers I've talked to online theorized that chapter books are easier to read at bedtime because children are more willing to read more difficult stuff in order to put off bedtime. We didn't even start a *regular* bedtime story until we started seriously on chapter books, which wasn't until just before his third birthday.

I've occasionally come across parents who express frustration that their children don't want to read to. It's hard to say what the problem is without more specific information, but what *could* be causing it is a lack of book choices that are acceptable to the child. Just like adults, small children—especially after the age of 2 to 3—have definite tastes in books, and they can be in the mood for one book at one time and a different one at another. So it is important, crucial in fact, to have a good supply of unread (or under-read) books on hand at all times, so you can give your child a large range of choices.

The way we usually do it is rather simple: I propose a book. If he's game he'll show interest in my choice. If not, I offer him a choice of 4-5 more books, and usually he'll choose one of those. He usually wants to read *something*. You might worry that your child might never want to read certain expensive books you've bought or never want to study some topic you think is important for him to know about. Our experience, however, is that books he says "no" to at one time, he'll usually say "yes" to at some later

time. The percentage of books that I've bought or checked out for him that he *always* says "no" to is around 5-10%. (The percentage is higher for chapter books, but that doesn't keep us from reading high-quality chapter books every evening; see the list at the end of this essay.) Unaccountably, there are some books that he's decided he just doesn't like. That's OK with me.

If you take this advice, in time your child will surely learn that there's always *something* interesting out there to read. Here are some other tricks we've used. Reading time is, famously, closeness time, and this is important. Sit the child in your lap or right next to you in a comfy couch or chair, and there will be less resistance than if you are sitting in front of the child, librarian style. Also, read at mealtimes, when you have a "captive audience"; this is when we get a lot of our reading done. Finally, of course, don't read in a monotone or with a sing-song voice, read like you mean it, conversationally or dramatically. Vary your voice; read like you understand and care what you are reading about.

It also helps to read with the notion that you are not just sounding out the words, but conveying meaning; I think of myself as not so much reading as explaining the text to the child. The difficulty of vocabulary can turn a child off to more advanced books. But I was able to make otherwise difficult books accessible to my son. I pointed at any illustrative pictures whenever I thought he may not understand a word. Especially at age two and later, when vocabulary is starting to get off the ground floor, I offered very simple definitions of difficult words. Certainly, children can pick up a lot from context. But I am also sure, based on my experience of explaining hundreds of words to my boy and then watching him use those words immediately in conversation, that giving simple verbal glosses of words has greatly increased his vocabulary. At first you might find yourself fumbling for words of explanation, but the more child-accessible definitions you offer, the easier it becomes to formulate them "on the fly," so you don't have to stop reading for long. Sometimes just one or two words, a vague synonym, will help. By using such tricks, we were able to

read *Pinocchio* (in this edition, chock-full of pictures), which has a lot of quite difficult vocabulary words. I explained a lot of those words on the fly, and my boy liked the story enough not to be impatient with the explanations. In fact, he came to expect such explanations and seemed to find them interesting, if they weren't too long. As to the book itself, he liked it so much that we immediately went back to read it a second time, even though it's quite long for a children's book. (I think it appealed to the "naughty little boy" in him; see my review.)

6. Concept-building: presentations, the Doman method, and OPD

About six months after I started teaching my son to read, I started showing him PowerPoint presentations that I made. Over the course of the next 18 months or so, I made around 150 presentations. I think this increased his general knowledge and vocabulary and also helped with his reading ability.

But first, some background. After starting on phonics flashcards and *YBCR*, I started reading more on- and offline about Glenn Doman and his method. It was Doman's notion of flashcards and other online presentations I had seen, that inspired the presentations I started about six months after we started learning to read. I am not going to go into much detail about Doman's methods, because there are many explanations online, and an in-depth explanation would make this already too-long essay even longer.

Beginning in the 1950s, Glenn Doman, originally trained as a physical therapist, turned to therapy for brain-damaged children. Later he applied his teaching therapies to normal children. He became convinced that every child has genius potential, and that society is dreadfully under-serving its children by not tapping into that potential. This led to a series of books with titles like *How to Teach Your Baby to Read* and *How to Give Your Baby Encyclopedic Knowledge*. The latter title spoke to my interests in encyclopedias

and knowledge, so I read it shortly after I began teaching my son to read. I found Doman's writing to be over-the-top and his claims exaggerated, but, considering the surprising examples of baby reading and other kinds of precocious development, I still found the Doman method intriguing.

The method involves several stages of development. In the first stage, the teacher sits a baby down (beginning around six months of age) and flashes very large-type, red-colored words on large cards (one word filling up a whole card the size of a piece of notebook paper), one per second, while saying the word in a joyful tone of voice. It is crucial, says Doman, that this flashing should *not* be done unless a baby is fully engaged and alert. Many accounts I've read say that babies actually like this quite a bit. In a later stage (or maybe it is just an alternate way of doing the first stage), after the word, a large, clear picture of the thing the word describes is shown. So, for example, one might print the word "dog" in very big red letters on a large piece of card paper, and then paste a picture of a dog (*just* the dog, nothing else) on another card. One prepares 5-10 of such word-picture pairs, and then shows them in quick succession to the baby. This "flashing" is supposed to be done something like three times a day, and can be accomplished in less than a minute, total. The next stage involves not just saying the word, but expressing some pithy facts about the object named. So you might first show and state the word "dog," and then, while showing a picture or two of dogs, you might say, "Dogs bark to scare off people and animals they don't know, or when excited."

Doman recommended making paper flashcards, but for the 21st century, his method has been converted into a digital form by various active parents, such as Perla Adams at theclassicalmommy.com (Adams later became disillusioned with the Doman method because of its emphasis on the whole word method; you can read her insights on her site) and the people at BrillKids.com, in PowerPoint presentations and other media. BrillKids has proprietary software. Some people make videos that

can be used a similar way, and apps are the latest way to deliver such content. Good images can be found very quickly via Google Image Search, Flickr, and other sources, and then simply dragged on to PowerPoint slides.

I proceeded to download dozens of PowerPoint presentations made by parents who were following Doman's methods; my son ate these up. I soon started making many presentations myself, about a wide assortment of topics—not just the ones recommended by Doman. I decided to put whole sentences (or parts of sentences) on most presentations, and finding an appropriate image for each "fact" I wanted to teach. (But I never used *too* much text, and always tried to use words that I thought my son would know.) In this way, we covered topics as diverse as zoo animals, geography, art, music, space, physical science, and many other topics. For the same purpose, we also spent a fair bit of time in the library when he was two years old, looking for what librarians call "concept books." A concept book is basically a very simply-written book meant to introduce some basic concept, like the numbers, alphabet, seasons, colors, and other of the simplest concepts. My own presentations were essentially concept books put onto PowerPoint presentations. I still make presentations occasionally.

My son was always game to look at new presentations, and especially when he was two, he would look at the presentations over and over again. But later on, there were some he didn't seem to like so much; I didn't insist on showing them, of course. Over the course of several months, anyway, we looked even at the less attractive ones several times, and he showed every sign of picking up a lot of knowledge that way. Sometimes he would complain and cry loudly if we stopped looking at them before he was ready to stop, and he had his favorites that he insisted on looking at over and over and over—just as with ordinary books.

You might quite justifiably wonder what the point of preparing amateur presentations of this sort is, when the same information

is to be found, more professionally produced, in children's books. To be sure, we did read *both* books and presentations a lot, though we spent much more time on regular books than on presentations.

But presentations of the sort I make are similar to Doman-style presentations in that they serve two functions that ordinary books do not serve so well. The first is that they can help to teach a small child to read. By using large print that pops out at the child (Doman recommends using bold red type), by using just one or few words per page, and by clearly separating text from pictures, such presentations make it easier for children to pay attention to the words. Of course, some baby books, and easiest readers and concept books, are written this way; probably, more should be. Somebody ought to create a giant paper encyclopedia made this way. If done well, I think it would sell like hotcakes, and potentially teach a generation of kids to read better.

The second function is that these presentations are primarily aimed at teaching concepts and vocabulary, or those facts that are so basic that they arguably form part of our concept of a thing. The latter—"teaching concepts and vocabulary"—probably sounds so insufferably dry that you can't imagine a child *not* having to be *forced* to view such presentations. But that's just not the case. Here I return to Doman. He insists over and over that babies love to learn, that they would rather learn than eat, etc. I doubt that's always their top priority, but thinking of small children as deeply interested learners does seem to explain a lot of their behavior, and is supported by science; see Alison Gopnik's *The Philosophical Baby* for reports on supporting research. And as it turns out, my son loves some of the most factual presentations I made on the driest-seeming subjects—would you believe chemistry and electricity? But also pigs in mud.

Along the same lines, one of my son's favorite books has been the *Oxford Picture Dictionary,* which he calls "op-ed" because the large letters "OPD" appear on the cover. We have been reading it

through, systematically, just a few pages (at most) at a time, for something like two years. He frequently requests it and hasn't yet gotten tired of it. This book is intended to help teach English as a second language, but I find it is excellent for teaching concepts and vocabulary to learners of English as a *first* language. I point to a word, say its name, then point to the picture that the word refers to (if necessary—often, the word is just below the picture). Then, if I think the meaning of the word is unclear to my son, I give it a quick gloss I think he can understand. Sometimes this leads to questions and further explanations. In this way I have explained basic concepts about practically everything about the world. For some reason, he strongly prefers *OPD* to the children's picture dictionaries and encyclopedias we have found, and we have several. (By "strongly prefers" I mean that he frequently requests OPD, and he basically can't stand looking at the others. I can't figure out why.)

I would be remiss if I did not mention that my wife, a language teacher from another country, speaks another language exclusively to my son, so he is bilingual (without much "formal" training; but we've done some Rosetta Stone and reading in that language, and he can read some words in that language as well). So he is learning words for the same concepts in two languages. He not infrequently uses a word in the other language if he does not know it as well in English. I sometimes have to ask him what the word means in English, and he is sometimes able to give me a translation.

I believe that having been taught concepts and vocabulary explicitly—even if it is unfashionable to do so—has greatly improved my son's abilities to read, to comprehend written language, and to speak well. While being able to read (meaning, here, decode text) is an important tool for developing vocabulary, comprehension, and speaking abilities, being introduced directly to concepts, with clear language and pictures, really helps as well.

I should add in all honesty that I personally have no *proof* of these claims. It may have been more efficient in teaching these language skills to do something else than to teach concepts and vocabulary explicitly, and let him learn vocabulary more often from context. I would be delighted to discover that some researchers had taken up the question of the efficacy of Doman-style presentations and/or similar media (PowerPoints and concept books) for the *extremely* young, but I am not aware of any studies. At least I can say that it does not seem to have been an entire waste of time. I have noticed my son using many of the words and facts he was taught from presentations, and I trust that whenever he is engaged with some material, then he is learning. When he is not engaged with the material, we quickly stop and move on to something else.

7. Other educational activities that helped with learning to read

There are a wide variety of other educational activities that have supported my son's ability to read (and learn more generally). In no particular order, here is an extensive but still incomplete list.

- For a period of many months, I told him what different road signs said, and I also occasionally asked him to read some signs. Pretty soon he was offering the information himself. He took a great interest in signs and so I made a series of PowerPoint presentations about them. Reading store signs and other signs became one of his favorite pastimes when we were in the car; he still points out and reads the more unusual signs.

- On several occasions when he was 2 and 3, I wrote down his stories; usually it was just him narrating something that happened to him, but sometimes it was wholly made-up. He always got a big kick out of reading his own words.

- When he was three, I think inspired in part by my writing down his stories, he took to telling me stories at bedtime.

I encouraged this and we did it for many months. His stories used all sorts of bizarre and imaginative remixtures of plots, characters, and objects picked up from his reading and experience.

- I let him play on the computer a fair bit, so he can use the mouse well and hunt-and-peck a few words. When he was two and three, I often started my word processing program and increased the font size to something really big, then he would just bang on the keyboard, but sometimes he would write out a few words with my help. He still practices his reading abilities as he navigates the Internet; usually I get him onto some educational website, then sometimes he takes over. More than once, all by himself, he clicked my WatchKnow.org favorites bar link, then typed in "pig" in the search engine. Note, by age 4 he still had not learned how to write (he could write only a few easy capital letters).

- One thing that made a few books more interesting for my son was to use PowerPoint presentations explaining vocabulary from those books. We did this with *Charlotte's Web* and a few others.

- We regularly look at a globe placed near the dining room table. We play "How about Right There": once, when he was two, I said, "Let's imagine we could take a trip anywhere in the world, but we didn't know where we were going to go. We could go…how about…right there!" As I said this I would spin the globe, without looking at it, and put my finger randomly somewhere on it. Then I would say something about where we landed. My son got a big kick out of that, and requested to play it again and again. He still does; on his fourth birthday we were still playing it pretty often. We also looked at maps and atlases a lot.

- At our local Wal-Mart type store we bought several sets of 24-piece puzzles, each puzzle showing a different topic.

There is writing (labels) on these puzzles, and putting them together, usually with some help, has (among other things) reinforced many concepts as well as his reading skills. We also did some map puzzles and, again, reading skills were both used and reinforced in doing these.

- When my son was a toddler, we went over nursery rhymes and songs repeatedly, so much so that he memorized many of them.

- My son's current favorite toy is Legos, which he's learned how to play very well. I went a little beyond the call of duty in making sets of organizer drawers, with labels on them, for his Legos. To my surprise, he very quickly memorized the labels, and knows where all the pieces go. I am sure that this is good practice not just for reading but for conceptual-analytical ability as well. But it certainly took a (mostly fun) time investment on my part. We also have spent many hours with a Radio Shack "Electronic Snap Kit," which involves reading and interpreting some instructions (and learning about electronic circuits and components).

- I don't know how much it has helped with reading, but certainly he has been exposed to new vocabulary and concepts by helping me do half of the experiments out of *Chemistry for Every Kid*. We read all of this together. Since it is all in support of gee-whiz experiments, he usually pays excellent attention to the explanations, even though he probably understands only half of the text. I try as best as I can to explain simply the scientific jargon and explanations in the text.

- Just since spring 2010 we've been doing a lot of new apps on the iPod touch and iPad. Some of these seem quite good for reading development, such as dot-to-dot games that reinforce the alphabet, touch-writing tutors that teach handwriting and spelling, a Speak-and-Spell emulator, etc.

8. Plans for our second child

While I was working on this essay, our family added another boy. In his first month, I started showing baby #2 a variety of iPad baby apps. I have also started reading the same baby board books to him that I used with our first boy. As long as baby is paying attention (i.e., gazing with interest at the book or screen), and is not getting *too* excited—that is a sign of overstimulation, at this age—I show him stuff for as long as he wants. This is usually not longer than five minutes. I also show him some music apps, which have the added benefit of calming down a fussy baby.

Will I do anything different with baby #2? Not a lot—mainly I'll just do more of the same, as long as he is interested and engaged. We'll do more alphabet books. We'll get a half-dozen more and read them often.

I am sure we will use *YBCR,* probably beginning around six months—or when he can focus and be interested in what's going on on TV. While I do worry that he'll learn to read using a whole word method (and as a result, he might be less able to understand phonics), I'm not *very* worried about this. When I am satisfied that he can understand the sounds the letters make, and once he can speak, I'll try using my phonics flash cards using the method I used with my first. When this will be depends on him, of course.

We'll also do more of what Doman calls "encyclopedic knowledge." This will take the form of sets of pictures (and names to go with them) of different categories of things. By the time he's ready for them, I should have started making a lot more of my own presentations, which have simple sentences, beyond single words. I'm especially excited about this. WatchKnow's funder, who pays for my work, is enthusiastic in support of what will essentially be a massive children's encyclopedia, covering every topic that can be taught (gainfully) to young children. I look forward not only to writing this, even more I look forward to

using the results with my two boys. I will probably be blogging about our progress at larrysanger.org.

PART 2: teaching the very young to read—a defense

I now switch gears. While our story perhaps carries various implicit lessons, any critical-thinking person who is very new to the whole subject of very early reading is still apt to have many questions and objections. A friend told me, "I don't know what the point of this essay is; all you have to do is show your video to the world." But I disagree. When skeptics view the video, most of them say, "But your kid just has smart genes." This makes it easy to ignore the possibility that, in fact, all children have a similar potential.

In the following, I have attempted to state and honestly deal with every problem and criticism I have come across, or could think of, about teaching babies and toddlers to read. But, again, I don't pretend to have the final word.

It is important for researchers to note I am beginning with the easiest-to-respond-to criticisms. I do not get to the sort of criticisms articulated by the more sophisticated, well-informed critics until Section 7 or so. For example, not until Section 9 do I address the notion that toddlers and preschoolers are not developmentally ready to benefit from reading, because they do not understand what they are reading *well enough*. This objection must be taken seriously, and is much more sophisticated than the relatively simple objection that toddlers will never do anything more than "word calling," a problem relatively quickly dispatched

in Section 1. And it isn't until Section 12 that I get to another important objection: that early reading has no long-term advantages. I spend a long time on that one.

So I begin with a defense of the general notion that it is possible to teach tiny tots to read in the first place. You might be surprised to learn that, in my opinion, this is pretty much the easiest thing to establish on the subject.

1. Yes, it is possible

> This must be a joke or scam. It isn't really possible to teach babies and toddlers to read, right?

If you just did not know that it is possible to teach one-year-olds to learn to recognize individual written words, you may be in for a shock. The quickest way to convince yourself that this is at least plausible is to watch some YouTube videos. Try this YouTube search, then this one, then this one. Go ahead, watch some videos now, if you haven't done so already; it will place the rest of this essay in an essential context. If you *aren't* familiar with such videos or have never seen a very small child read, the rest of this is probably going to sound bizarre, and you probably won't understand it.

Are you convinced? If you weren't convinced before, you're probably not convinced now. You are probably just skeptical or confused now. That's understandable; it was my first reaction, too. The whole idea of teaching babies to read sounds ridiculous at first. So let's reply to a few doubts that might spring to mind. And first things first:

> Isn't this just a dishonest trick?

Nope. Nobody's whispering the words to the kids, for instance. The videos aren't dubbed over. And the kids really are that young. There's at least one video of a 9-month-old girl who, for example, touches her toes when she sees the word "toes." Quite a few sub-

one-year-olds have learned to do that sort of stuff. The sheer quantity of the videos should be enough to establish that it's not just trickery. I mean, if you don't want to take *my* word for it that it's not trickery, just watch a whole bunch of videos and I think you'll find your doubts, on *that* score anyway, disappearing.

> Aren't the children just memorizing the order of words?

If a tot has learned the words properly, as many of these tots have, the words can be presented on flash cards and presented in any order you wish. They aren't just memorizing the order of the words. Again, I have long experience of this with my own boy, and many others appear to have similar experience. (I found it hard to keep our flash cards in any order, actually, as parents with little kids will be able to understand.)

> Haven't the little book-readers just memorized the books? Lots of non-readers do that, you know.

Some of the videos purport to show tiny book-readers. You might suspect that the tots aren't reading, that they've just memorized the books, as in this case. Of course, that's impressive too; their parents are rightly proud of their children's ability to memorize. Also, of course people put up videos of their children cutely "pretending" to read. So how do you know the children are *really* reading?

First, just look at some *other* videos in those video searches. In a number of them, it sure doesn't *look* like a child has memorized the book, like (just to take one of many examples) this one. Finally, if you can take my word for it, then just know that my own boy was reading his first books (very simple ones, like *Go Dog Go*) shortly after his second birthday, and by age 29 months he was reading *Little Bear*. Have a look at our video, if you haven't yet. I could show him brand new books, or write brand new sentences for him, and he could read them out loud with little trouble. The clips from when my boy was 3½ should be a little more convincing—he read the bit about two- and three-stroke

engines from a book that he selected at random, and I don't think he had ever read that question or answer before.

Anyway, in many of these videos, those little kids *really are* decoding the words, in response to seeing the text on the page. In other words, they're *reading* (in that sense). Again, watch a bunch of videos and you'll probably be able to entertain seriously the proposition that they aren't just memorizing the book. At least that's the conclusion I came to, although I admit I didn't become 100% convinced of it until I saw my own little boy doing the same.

> If the children really are decoding the text so early, aren't they hyperlexic?

Hyperlexia is a disorder in which a very young child spontaneously picks up how to decode written language, but without comprehension. It is associated with autism. I've never come across any discussion or video online that suggests that one can *induce* hyperlexia by deliberately teaching a tiny tot how to read in the ways described here. In my many conversations online with other parents (mostly mothers) who have taught their small children to read, none of the parents with early-reading tots have said that their children were diagnosed hyperlexic. We naturally care a lot about our children and if we had any fears on this score, we would have them checked out, and at least some of us would share the information with others.

(By the way, two small online communities I frequent, the BrillKids.com Forum and the TeachYourBabyToRead Yahoo! group, are woefully underserved by the research community—in my experience, not one reading researcher or early education expert has waded into these communities either to challenge or to educate. So we are left to figure things out for ourselves and share information.)

> I tried *YBCR* (or Doman) with my child, and it didn't work for us. So, not all small children can learn to read.

Let me first clarify this: I would not claim that all babies and toddlers can learn to read before the age of three, any more than I would claim that all children can learn to read before the age of seven. I wish both things were true, but I am a realist. Sometimes, the right circumstances simply don't come together.

I make the more modest claim that *many* people who try it with their children will succeed. What is the proportion? I wish I knew, but I don't have a clue. My best guess is a majority. But then, maybe it's a minority, and I simply don't hear about the many failures. This is one reason why I think there's an urgent need for studies of very early reading programs—precisely to settle questions such as this. What if it turns out that 80% of under-twos who start a program, and use it according to instructions, can decode words phonetically by age three? That would be huge news.

> The children who are successfully taught to read early must be profoundly gifted. Your boy probably has "smart genes." But surely, most children can't learn this way.

Despite some of the hype from people selling products and from some of the parents, I don't think kids who learn to read at an early age are necessarily "geniuses." Critics generally assert that those children who are able to read with facility and comprehension from an early age were "gifted" to begin with, with the implication that average-intelligence kids cannot be taught to read at a very early age. I was lucky enough to get an email from Tufts child developmentalist, Maryanne Wolf, and that was her opinion of my own son: he is "more than likely one the outliers on the y axis" of the famous bell-shaped curve of various human attributes.

I disagree with both the hype and the critics: toddlers who can read are not necessarily geniuses, any more than are toddlers who can use sign language. In discussion with other parents online

who use these programs—and with all due respect to these often wonderful, generous parents—I've seen little indication that the babies who have been taught to read come from *unusually* brilliant genes. Many parents who use Doman and other early learning programs admit they themselves did not do very well in school, and occasionally admit to being no geniuses themselves; they just want to give their children an advantage.

Both Doman and Titzer, who have considerable experience with the range of kids who are taught to read early, have said that success in being taught to read early, in their experience, is not a simple function of intelligence. If they are to be believed, there are many parents of average intelligence who have taught their babies and toddlers to decode many words.

And most persuasive, if you can accept the claims, is that Doman developed his early reading program originally for brain-damaged children, and he claims that many of such children have been taught to read independently by their preschool years using his methods. Such reports would give support to the notion that genius-level genes aren't necessary for the success of the "baby reading" programs.

> Aren't these children merely memorizing a handful of words by shape?

Now we move into somewhat more difficult objections. Some critics say that, even if very small children of average or low intelligence can memorize words, they're just memorizing the overall shape of the word—they aren't sounding out the words or learning phonics, and so they aren't really reading. Some leading methods of teaching babies and toddlers to read, including Doman's and Titzer's, might seem open to this criticism, because they involve showing tots words in a fairly haphazard way, but over and over again. (To be precise, though, while Titzer's videos feature a lot of repetition, Doman's method would have the parent flash a word to a child only a half-dozen times or so over a period of a few days, and then that word is taken out of rotation.)

Such methods, which resemble the old "whole word" or "look-and-say" methods of reading, do not explicitly teach kids to sound out new words phonetically (i.e., according to the sounds that the individual letters make), which—I agree—is the *sine qua non* of genuine decoding ability. I have three responses to this.

First, a simple point. The font style and color in *YBCR* and many Doman-inspired presentations are deliberately varied. Moreover, many very early readers (including my son) have shown they could read cursive handwriting without any sort of systematic exposure to it at all. The point is that the children are apparently not depending on cues related to font.

Second, Titzer claims to have observed many kids who have picked up phonetic rules automatically. The Doman camp makes similar claims too. The idea is, for example, that after a kid learns "same" and "game" and "tame," he begins to understand that the "e" at the end of the word makes the "a" say its name. He doesn't have to be taught this rule explicitly; he just picks it up inductively.

Titzer also claims that the plastic early brain—the ability of baby brains to be easily "wired" and "rewired" in radically different ways—is ideally suited to learn just such rules. That's largely the same way the brain quickly learns to pick out individual words from the steady stream of consonants and vowels and eventually to understand the grammatical rules of spoken English.

Confirming evidence for the predicted effect, as far as I know, is just anecdotal. I've seen many claims from parents in online discussion groups that their children, as young as one year old, are able to sound out new words. That is, there are tiny tots who have gone through these programs who are able to sound out words they've never seen before, just as if they had learned explicit phonics—according to their parents, who are highly interested in such abilities. By the way, phonics is worked in a little in the *Your Baby Can Read* series and some more in the follow-up *Your Child*

Can Read series. Another program that incorporates some elements of phonics is the BrillKids "Little Reader" software.

Third, if you aren't convinced that your child will pick up the rules "on the fly," you don't have to teach your kid to read in a "haphazard" way at all. As I explained in Part 1, I presented flash cards to my boy based on phonetic groupings, and it was plain to see that he was picking up the rules as we went from set to set. But, somewhat to my surprise, I also noticed that he was learning to read many words well before we learned the rules that would allow him to sound out those words. Probably, Titzer is right that kids do learn phonetic rules "on the fly" and "in context," but I suspect that presenting words to kids according to progressively arranged phonetic groupings will help them in this learning process. Obviously, careful empirical study is needed.

However the children do it, by the time they're two or three, many of them who started reading earlier can sound out new words. For example, here's a two-year-old phonetically sounding out "slipper" (at 3:41). My own son is another example, and of course many other examples of very young children using phonics can be found on YouTube.

The point in any case is that these early learners *can* sound out new words, in fact, and it is possible to carry out programs *similar* to Doman's and Titzer's that use systematic phonics. These two points partially (but do not completely) defang a point made frequently by reading specialists, such as Trevor Cairney, who offer warnings about the *YBCR* videos, criticizing them because they appear only to teach babies to memorize whole words. Cairney says in a blog post that the videos teach children only to "recognise instantly a number of words," while full-bodied reading requires that they "learn the sounds of language and their correspondence with print" and "understand the structure of language and how it works."

Such objections can be powerful especially for those who, like me, are supporters of synthetic, intensive, systematic phonics. But I think the advisability of teaching early reading does not stand or fall with the merits of the whole word method. Moreover, I've encountered several parents online who started their babies reading using the Doman method and later, after a few years, introduced phonics systematically. Whether this helps to mitigate any problems that phonics supporters might have with the whole word learning methods, I have no idea—I'd guess it does. But certainly, you don't have to buy into the whole word/whole language approach in order to support very early reading.

> A child who has learned to read very early does not master other skills that are traditionally taught, in kindergarten and first grade, at the same time as reading, such as handwriting, spelling, the first rudiments of grammar and punctuation, etc. Doesn't that show claims that "your baby can read" ultimately to be misleading?

The first claim here is perfectly true. I have discovered that even at age four, my boy could not quickly locate a letter in an alphabetical list of letters (so he did not know the order or placement of letters very well); he was around average in his handwriting skills; while he could spell some words, he didn't spell a lot (but some early-educated kids *can* do this); and he had barely started to learn the difference between a noun and a verb. So some kindergarten and first grade skills were still quite challenging for him. But he could decode at or above the fifth grade level, and his vocabulary, comprehension, and ability to detect misspelled words (for example, "nite") were all quite advanced for his age (not as advanced as his decoding ability, of course).

This is a problem only if you had the notion that when people say "your baby can read" they mean "your baby is ready to start kindergarten language arts"—which is absolutely false, and I don't think anyone claims that it is true. To be sure, there are various things you can do to accelerate a very young child's understanding of kindergarten language arts, if you wanted to do that. But I fully concede that there are some things about language that, no matter what techniques you use, you just can't teach to a baby or toddler.

It's just that *decoding written English*—that particular skill, as hard as it is for so many first graders—is not one of those more advanced skills. I think our experience, like that of other parents I've talked with, indicates that learning to decode written English is not terribly difficult for very young children to learn. Most people simply don't know this.

> It's just "barking at print"; it's not really reading. Some tiny children might be able to decode written language, but they aren't getting meaning from it.

Many educationists, if pressed, will acknowledge that it may *look* like some babies and toddlers can read, but they will immediately dismiss what's going on as "barking at print" or "word calling." These contemptuous descriptions mean that kids can say words out loud, but they don't really understand what they are appear to be reading. I have two responses to this.

First, the one- and two-year-olds in those videos are usually shown words like "hi" and "dog" and "nose," all of which are probably words that the kids understand perfectly well when spoken out loud (by themselves or by others). So if the same children *read* the same words, why think they can't understand them? Of course they can. This is true of simple sentences, I'm sure. If a child reads, "The ball is blue," and you see everyday evidence of the child understanding such simple sentences, then why claim that he *doesn't* know the meaning of the same sentence when he reads it out loud? Of course he does. This might evoke protests that I am misunderstanding, but I don't think so. The claim, again, is that the early readers are *merely barking at print*. But obviously, they aren't. So let's discuss some different, more modest, more plausible criticisms.

First, let me concede a few things. It's true that the ability to "read," in any useful sense of the word, is limited by one's ability to *comprehend* language. In other words, if a kid looks at a written sentence and says it out loud, but the sentence has words or

grammatical constructions that he just doesn't understand, he hasn't *really* "read" the sentence in the sense of having understood it. It's entirely possible that a kid at two years old might be able to decode many strings of words that he doesn't really understand. I also want to concede that even seemingly simple sentences can have all sorts of relatively advanced conceptual "baggage" that a small child does not grasp; I don't claim, of course, that a reading two-year-old's understanding of a sentence is as sophisticated as an older child's or an adult's, just because he can decode the sentence. So when, at age three, my boy read the First Amendment, I did not conclude that he could *understand* the First Amendment; of course he couldn't. But so what? He can still read a lot of things that he *can* understand well enough, like the Magic Tree House books he loves so much. That's the real point, which must not be passed over lightly.

There's a related criticism. It goes like this: "Babies can't read. They can memorize words and simple sentences, but that isn't reading, even if they understand the words. Reading means understanding words that are strung together to make sentences, which are then strung together to the length of stories." I concede that most if not all babies can't read in the same sense that we use when we say a first grader (with similar decoding skills) can read; that sounds right to me. Perhaps there are no *babies* (under age two), that go through programs like I am going to describe, who can both read *and,* in any meaningful sense, *really* understand enough sentences strung together to make up, say, a typical fairy tale. This is not so difficult for the first grader.

(Robert Titzer believes I am conceding too much here. He told me that he has observed 18-month-olds who could read and understand very simple books, such as "level one" readers. Obviously, this is a matter for further study and debate; as a philosopher, I have to wonder what it even *means* to say that an 18-month-old "understands" a text.)

Such criticisms are sometimes advanced as if they settled the matter, but they do not. Many slightly older children, two- and three-year-olds, who are properly trained *can* both read and understand simple stories in the same way they understand the same stories when read to them. If you aren't convinced, go back to YouTube and look at some of these videos, or these. Then ask yourself: could those tots understand those stories if they were read to them? No, not perfectly, but well *enough*—and so, if they are reading the stories themselves, they are grasping the language just as well as they would if mommy or daddy were reading to them. I suppose research might prove me wrong on this point, but I don't see why reading for oneself would make comprehension much more difficult than being read to.

There is another way to explain this objection, however, that makes it more plausible. "Word calling" or "barking at print" means reading without comprehension. This is often associated with the tendency of some beginning readers to read slowly, effortfully, in a monotone, syllable by syllable—which naturally raises the question whether the meaning of the words they are so painstakingly reading is really sinking in. Children who read with more fluidity and with proper emphasis *seem* to understand the text more easily. (Of course, even they are not necessarily doing so; my boy read about two- and four-cycle engines pretty fluidly, but I am sure he didn't understand the text very well.) There are some videos on YouTube, such as this one, in which very early readers are reading haltingly, and might seem to be "word calling." Now, even if they do, I've seen proud parents frequently write about them by the age of four or five, reporting that they are *then* reading quite quickly, fluidly, and at advanced level.

The relevant question is whether children who start early are *more likely* than other beginning readers to do word calling of this sort. Obviously, empirical studies are needed to assess this. Based only on the dozens of videos of young readers I've watched, it doesn't seem to me that younger children are more likely to read very haltingly; the youngest book readers you can see on YouTube,

even around age 24 months, seem to be reading with some fluidity. This obviously doesn't establish that they understand what they mean, but it does indicate that they are not reading "slowly, effortfully, in a monotone, syllable by syllable." It also admittedly doesn't prove much, because most parents will upload only those videos in which their children shine.

Now, there *is* a closely-related issue, that finally gets down to something really interesting. Sure, many small children can learn to read, and yes, many can understand simple books that they read themselves with some facility, but still, perhaps there is no *point* to learning to read at an early age, precisely because few children are conceptually ready, early on, to benefit as much as they can later. This is a much more reasonable and subtle point; we'll come back to it later, especially but not only in Section 9. But to put the present issue to rest, the notion that children don't benefit from early reading does not mean that they are merely "barking at print" (in any sense) when they are reading books that they can understand.

This will have to do for my initial defense of the claim that it is possible to teach very young children how to read. Next, I will reply to a variety of other objections and questions.

2. The problem of the sales hype

> The extravagant claims of those selling early reading products are wrong or overblown. Maybe there's something to them, but isn't the sales hype over the top?

I have to agree that, as with many consumer products that are supposed to do unusual things, there is a lot of breathless hype in this field. Speaking as an avid consumer of baby learning products, the claims strike me as sometimes cringe-inducing and over-the-top.

Glenn Doman in his books and videos is given to making all sorts of quite extravagant claims, such as that all children are born with more innate intellectual ability than geniuses like da Vinci and Einstein ever used, and that they would rather learn than eat. At the time I drafted this section, YourBabyCanRead.com was offering up a "Reading Grade Level Progression" chart that made it look as if credible data had been published that shows that use of *YBCR* causes children to read as well as 12-year-olds by the time they are six. Intellbaby.com makes scientific-sounding but vague claims such as "Research shows that a one year old will learn twice as fast as a three year old," and lays on the pressure: "Don't be left behind." But hats off to BrillKids.com, which acknowledges and responds at great length to a well-informed, skeptical stance toward what they are trying to sell. Their more balanced long essay, "The Arguments For + Against Early Learning," strikes a more sensible tone.

I have actually become acquainted with some of the people behind such products, and they (small business owners) all strike me as being well-meaning, sincere, and intelligent. Perhaps they shouldn't be blamed too much if they do not present their information in the measured, cautious tones of science. After all, they *are* saying that babies can be taught to read and deeply benefit thereby—which *is* revolutionary, if true. Besides, just consider Glenn Doman again: his Institutes for the Achievement of Human Potential is a non-profit. If he were merely a crass profit-seeker, surely he would have devoted his long life (he is now in his 90s), instead, to a for-profit concern. Yet Doman is probably the biggest hypester there is about this stuff. Though he frequently overuses hyperbole, his enthusiasm seems sincere, even charming; after all, to look at how many Doman-trained kids do, there would seem to be a lot to be enthusiastic about.

I can only ask the reader to look past the hype, if it is so hard to stomach, at least long enough to investigate the methods a little more closely. I can't fault anyone for distrusting people who try to sell products using vague, unproven, or overblown claims. I

totally understand anyone who says, "If it sounds too good to be true, it probably is." I would simply have you pay attention to the *results, consumers,* and *methods* of these products, rather than the sales patter. When you see videos of the children themselves reading at a much earlier age than you yourself learned, it is hard as a parent not to ask yourself, "Wouldn't I like that for my children? I wonder if we could do that." Anyway, that is the thought I had, about two years ago, when I first learned about these methods. I'm glad that I did set aside my own disappointment with the hype.

3. Why isn't this already common knowledge and practice?

> If there were anything to this, surely I would know about it already—it would be common knowledge, and everybody would be doing it. Why isn't that the case?

How on Earth can there be several successful methods of teaching very young children to read and so many people haven't heard of them before? Why isn't all of this common knowledge?

First of all, especially after the *YBCR* infomercials, that babies can read is becoming increasingly common knowledge, especially among parents. But it's very far from being widely accepted, let alone mainstream.

Why it has taken this long to hit the general public consciousness, I don't know. But I have a hypothesis that I will share with you. I think that most of the American people, at least (and maybe the West generally), share two basic world views with most academics: romanticism and egalitarianism. According to the romantic view of childhood learning, introduced by Rousseau's *Emile* and popularized by Montessori among others, children learn best naturally, by exploring the world and applying their own budding skills to the discovery of knowledge; it is somewhat opposed to all sorts of direct teaching, and more strongly opposed

to straightforward imparting or memorizing of facts in the early years, as in lectures and reading books. And, according to egalitarianism, everybody should be equal. It used to be that this meant only equal under the law; then it was expanded to mean equal in opportunity to achieve happiness; then it was expanded to mean equal in outcomes, or basically in any attribute that society values. How progressive you are is largely determined by how much (or what kinds of) equality you think should be mandated. The founder of the dominant philosophy of education in American education schools, educational progressivism, was John Dewey. He was strongly in favor of institutionalized schooling and social development in order to make good citizens, and he underemphasized the getting of facts.

I suspect that these two root ideas explain why most Americans, and American academics, are largely opposed to any sort of systematic direction of early learning. Let me explain.

If you're a romantic, you favor Nature. The Natural way to learn to read, it seems, is not to break down words into their phonetic parts, or do "drills," but instead—and only when children are "ready"—to just Naturally start reading words that they're familiar with. When children do so on their own, they are probably sounding out the words, but they do so because they are in some sense ready to do so (without any direct, systematic teaching). I will discuss this some more, further down.

Moreover, if you're a thoroughgoing egalitarian, you don't want any kids, or worse, any kids' parents, to get too uppity. I believe this is why there have often been quite harsh reactions to *YBCR* and, earlier, Doman. A totally committed egalitarian becomes suspicious and possibly hostile if some parents want their children to distinguish themselves too much. So there is a natural suspicion about parents who do extra educational activities with their kids: they must be pushing too hard. They must be "too ambitious." They probably only want to get their kids into Harvard, the elitist snobs (or, if the shoe fits: the bourgeois social climbers). Their

shallow, bourgeois ambition will rob their children of their natural, pure childhood. It does not matter, apparently, what the parents themselves report about their own motivations.

Nor does it seem to matter that many of the *objectionable* educational activities (unlike unobjectionable ones, like book-reading) take up only minutes out of every day. Never mind that the children love the activities and beg for them. Never mind that kids are like little sponges who desperately want to learn, that they get some of their greatest pleasure out of learning.

I maintain to the contrary that, like it or not, there will always be radical differences between people, because there are radical differences not only in natural abilities and home environment, but also in levels of motivation. Therefore, there need be no guilt if your child is learning more (or less), or if you are motivated to seek out creative ways to help your child learn more. And you might of course foster many new interests and thereby create even more learning—which, like it or not, might create more inequalities.

Many of the opinion-making academics and reporters who encounter the whole phenomenon of teaching babies to read are naturally inclined against it, I suggest, partly because they believe that mostly white, ambitious, bourgeois types will be attracted to it, and those people are already at an educational advantage in society. An example can be found in David Elkind's *Miseducation: Preschoolers at Risk,* in which Elkind devotes an entire chapter (the second) to laying out eight different stereotypes of parenting styles, and how these varieties of snobbish and over-ambitious parents are attracted to accelerated early learning. He even gives them names such as "Gourmet Parents" and "College-Degree Parents."

In such a hostile rhetorical climate, to write about or promote very early reading might seem inegalitarian and un-progressive. Early reading programs appeal only to parents "grasping" for their

children to "get ahead," when they are already bound to go farther than most. That's my best guess about why you haven't heard much about them apart from the *YBCR* infomercials, YouTube, and word-of-mouth—and the occasional (often highly critical) mention in the mass media.

If I am right, maybe I can help remove some of the resistance to these programs by pointing out a few things. First, this video and follow ups made an impression on me. Similarly, whenever I search for "Your Baby Can Read" on Twitter, I see that a large portion of the people commenting on the topic is black. This brought home for me that this is not a white-only thing. Well, why would it be? Nor is it merely an American bourgeois thing. In fact, in the forums about very early reading that I frequent, I estimate that around half of the participants are located outside of, or have emigrated from outside of, the United States. These programs are especially popular among Asians and eastern Europeans; *YBCR* has had a big reception in Asia, and the BrillKids folks are located in Hong Kong. Some other competing methods, not mentioned here (only because I'm not very familiar with them), originate in the Far East.

Also, for what it's worth, the funder of the project I'm working on currently, WatchKnow.org, is also seeking to fund a study which places *YBCR* in preschools and daycares that serve poor, inner-city Memphis areas. I agree with him that these efforts have the same potential that the Head Start program had: if it turns out that very young children can learn to read at a very early age by using these programs, it becomes important that we try to use them with disadvantaged children precisely to give them a leg up.

An online acquaintance added a related point that perhaps I should have placed first: surely the main reason many parents aren't motivated to try programs like this is that they believe it is the role of schools to teach reading. So they might even be convinced that the program works perfectly well—they simply would rather leave the whole job of teaching their children to read

with "the professionals." Of course, many educators themselves are no doubt inclined the same way; if a child arrives at kindergarten knowing how to read, that is something of a *problem* for the teacher.

4. The marginalization of very early reading

> It's a kooky fringe practice. If most experts don't take it seriously, why should I?

After studying and discussing these very early reading programs, my impression is that its professional critics, including most educationists, reading specialists, and developmental psychologists, have two main responses: claims to being able to teach small children to read are far overblown, and even if it's possible to some extent, it's not beneficial and possibly harmful. The extent of the contempt that some experts have for a program like *YBCR* can be seen, for example, in an October 2010 segment from the Today Show. (This program was biased and shockingly unfair to Robert Titzer and *YBCR,* in my opinion.)

Some experts resist admitting that teaching very young children to read is even possible. We've gone over this in Section 1, but it's worth approaching the question from a slightly different angle. A perfect example would be a developmental psychologist answering a question for BabyCenter.com: "Q. When and how can I teach my toddler to read?" The expert's answer:

> The truth is, right now you really can't. Children usually don't start reading before the age of 5 or 6, and for good reason. Researchers believe that until that age, most children have not yet formed certain neural connections that allow them to decode printed letters and then mentally combine them to make words. A few children are able to read earlier, but most of them just pick it up; they don't learn through direct instruction.

Apparently, some "neural connections" are needed to "decode printed letters and then mentally combine them to make words" (surely *that* much is true!), and most children just don't have those connections (except for the two-year-olds who have been taught to read?). The suggestion here is that there is something mysterious, probably comprehensible only to experts, about brain physiology that makes it impossible to teach younger children to read. That'll put a damper on any parent's excitement—you can't change your child's grey matter, it's not mature yet. Only "a few children" have adequately mature grey matter. The expert says so, so you don't need to think about that anymore.

Similarly, in reviews of these programs, critics often take the time to make a puzzlingly obvious observation, which is sometimes stated as if it were an argument-stopper: this has children learning to read *years* before children normally do. Period. So anyone who uses these programs with their babies or toddlers is doing something quite *abnormal*. The term they use is "developmentally inappropriate," a term we will be returning to later in detail. Attempting to do something developmentally inappropriate usually results in frustration on the part of both teacher and student, because the student just isn't ready yet.

Yet, as we've seen, reading *is* possible for a wide variety of small children who use various early reading programs, whose facility and eagerness with written language belies any suggestion that they aren't ready. So what gives?

I want to discuss the attitude or stance exhibited here. According to an expert offering advice to parents and teachers, it is not worth discussing at all—it is "not even wrong," not even a serious option or possibility—that children can be taught to read as babies or toddlers. This sort of "silent treatment" is rhetorically, for many people, one of the strongest arguments against early reading that experts present. If a person offered up as an expert isn't seriously discussing very early reading at all, then there *must* be something wrong with it. This sort of professional contempt

especially impacts academics, who fear the disfavor of their colleagues.

There are two things to say about the "silent treatment." First, in discussions with them, and interviews I've read and observed, some experts evince very little acquaintance with the phenomenon they're commenting on. They know a lot about how children normally read, how they acquire language, how brains get wired up for language learning, ordinary precocious readers (in the sense of those who begin at age three or four), and other admittedly relevant subject matters. But I have not yet been able to find, not without trying, a critical expert making an argument of the following form: "I have encountered *many* reading toddlers in my career, and based on this experience, I infer…" In other words, as far as I can tell, the experts are simply guessing, based on (a) their more general theoretical knowledge about brain science, child development, and the psychology of reading, (b) their specific knowledge of ordinary precocious readers, and (c) the whole "pushy parent/superbaby" cultural phenomenon of which they often have such contempt. Critics rarely refer to their personal experience of the very earliest readers themselves, because as far as I can tell, few or none of them have such personal experience. This is understandable if for no other reason than that the phenomenon has been so rare.

This could now be changing. For what it's worth, I have heard that there are four scientific studies of *YBCR* under way, and as I said, the people behind WatchKnow are helping to arrange another one.

As to those experts I've come across online and in books that are at least somewhat familiar with the phenomenon of extremely early reading, they have a whole variety of things to say about it.

There is quite a bit of research about "precocious readers," but the literature mostly concerns children who "naturally" pick up language before entering kindergarten. Most of such children

begin reading at the age of 3, 4, or 5. I was able to find one article which discussed a case of reading below the age of three (Henderson et al., 1993). The article discusses a child who read "pizza" at 24 months and was reading new words phonetically at two years, seven months. But the child was, or was treated as, mainly self-taught: "Precocious readers learn to read at unusually early ages, without formal instruction and with varying degrees of adult assistance." (p. 78) (I have more about research on precocious readers in Section 12 below.)

The topic of extremely early reading is also discussed in connection with hyperlexia and related disorders. For example, a 2005 book by Audra Jensen with the promising-sounding title, *When Babies Read,* bears the subtitle, *A Practical Guide to Helping Young Children with Hyperlexia, Asperger Syndrome and High-Functioning Autism.* Of course, those are not the children we're talking about. Interestingly, this book discusses the question whether to teach very young *autistic* children to read, and actually gives pointers on doing so, drawing on the methods of both Doman and Titzer.

But there have been very few experts who seem to be interested in coming to grips with the phenomenon—without simply dismissing or criticizing it—of an otherwise normal 2-year-old who is deliberately *taught* to read as a baby, and who seems to be able to understand books meant for her age, such as Dr. Seuss "Beginner Books" or *Little Bear*. This is very puzzling to me, because it is obviously such a fascinating subject for study.

If a researcher does a serious, credible study and discovers that these children are not (for some reason) *really* reading, that only a tiny portion of the children who start an early reading program learn to read, that they are not advanced readers by Kindergarten age, or something else damning, then an industry is satisfyingly debunked, and the world is safe for conventional notions of "reading readiness." On the other hand, if the research demonstrates that it really is possible to teach ordinary children (and even children with brain defects, according to Doman) to

read as toddlers, then we might open up a whole new world of educational possibilities to future generations of children.

Given the availability of such attractive and low-hanging research fruit, what accounts for the reluctance of researchers to discuss the phenomenon in any way other than dismissively? I believe it is ultimately because the social sciences—and this definitely includes fields such as early childhood education and developmental psychology—is heavily value-laden. Scientific-sounding jargon such as "developmentally appropriate" frequently reflects a whole set of deep assumptions that are not so much proven by hard data as a matter of common cultural practices, and accepted as part of a broad philosophical view of human nature. (I do not mean to deny that there is such a thing as a developmentally inappropriate time to teach something; I'm commenting only about how this concept is *used*.) And suffice it to say that for reasons mentioned above and others, the world view of most researchers in most relevant fields strongly militates against *any* early "academic"-type learning. One exception is what I consider to be academic training *par excellence,* namely, parents reading books to children, for which, curiously, an exception often seems to be made. (Rousseau himself wasn't big on books for small children. He didn't encourage his Emile to learn to read until he was an adolescent.)

The point is that many experts who ought to be studying this phenomenon come from a world view that encourages them to pretend that the phenomenon does not exist, or to dismiss it without serious consideration. This is why, I'd like to suggest, the fact that so many reading and learning experts are dismissive of very early reading does not mean "there *must* be something wrong with it."

5. The pressure objection

> Early education is pushy. Teaching skills too early runs the risk of burning out reluctant learners or depressing them. It's admirable that you want your children to learn, but won't forcing them to learn backfire?

Opponents often claim that early reading turns kids off, because the parents push the kids too hard. That has not been my experience in discussing these things with parents online, but before I respond, let me elaborate the objection. There is a tendency for critics, both researchers and non-experts, to assume that parents who engage in early education are uniformly "pushy" and "competitive"—strict disciplinarians, harsh taskmasters. With such parents standing over children and bossing them around in their formative reading experiences, reading would inevitably make them bored, disgusted, frustrated, depressed, and resistant.

Patrice Holden Werner and JoAnna Strother (1987) explained such concerns in depth:

> Pressure to read and perform at a very early age can sometimes lead children to be cautious and afraid to make mistakes. These children may perceive parents and teachers as setting standards that are beyond their ability to achieve… Unfortunately, they may develop negative attitudes toward learning and the school atmosphere. Also, some children living in an atmosphere of high standards perceive that their self worth is directly related to their early performance, usually in reading.

Werner and Strother make a convincing case that parents should not *expect* their children to read at an early age. They give a case study of a 4-year-old reading at a grade level of 1.5, whose parents certainly seem to have pressured him inappropriately and had inappropriately high expectations. The little boy experienced some social problems at preschool, "frustration, anxiety, and a strong

need for autonomy," as well as alarming levels of aggression. I have no doubt that such cases exist. But, to their credit, Werner and Strother go on to describe a different early reader who was positively "encouraged" to read, not pressured.

The question that critics never address is this: why think that, *in general,* parents who try to teach reading to children using *YBCR* and similar tools use pressure tactics to do so?

Suppose the answer is, "But heavy-handed tactics are the *only* way you can make an ordinary child read at an early age." This sounds plausible to the uninitiated, but the problem is that it's simply false. It belies any close acquaintance with the methods under discussion. In fact, if it is your position that very young children can be led to read *only* by stern, disciplinarian methods, against the wishes of the children, you simply don't know what you're talking about. No offense, really, but you're just guessing or uninformed. As many parents who have actually taught their tiny children to read, it is very much like a game for the children. We are not exaggerating when we say they love it.

It *is* possible to let the child go exactly at his own pace, merely presenting him materials in various innovative ways, such as I described in Part 1. Parents *can* be very sensitive to how much their children likes learning, so that they never push them when they doesn't want to go, and they make sure they're excited about it. What if you take breaks of weeks or even months from a subject or skill, and then he comes back all excited to learn more? I've done that, and so have other parents I've talked to. Then you're not pushing your child; he's leading the way.

To assume that early teaching of reading means that the parent *must* be pushing too hard—that there is *no* way to teach reading to toddlers *without* pushing—is to assume that children at an early age have either a natural resistance, or else an inability, to learn the decoding of language. But why think that? All the indicators I have seen are that the opposite is true: my own boy, like many

others, absolutely loved *YBCR*. He eventually grew tired of it, but only after seeing it many, many times by his own urgent pleas. Similarly, he used to ask for new flash cards (the ones I made) all the time and he never failed to be excited about new ones. He did get tired of them sometimes after a few presentations. Because I was concerned about him getting bored and turned off, I taught him to say "that's enough." When he said that, we took a break, sometimes an extended break.

I ought to consider a rebuttal here. In the Preface of *Miseducation,* Elkind writes:

> Infants and young children accept and participate in miseducation because it pleases those to whom they are attached, namely, their parents, not because they find it interesting or enjoyable. Miseducation can thus invoke internal conflicts and can set the groundwork for the more classical psychological problems such as neurosis and neurotic character formation. (p. xiv)

This suggests a reply to me. The fact that children are *willing* to be taught to read, Elkind might say, does not mean that they find it interesting or enjoyable. They go along because they want to please their parents. That is still a kind of pressure—more subtle, but still pressure, with potentially serious consequences.

There are several things to say about this, but I will not take much time with it. One problem is that it "proves too much" and is for that reason not worth very much as an argument: one can say of virtually *anything* that a parent proposes, and which a child agrees to, that the child does it because it pleases his parents, not because he finds it interesting. If this point were true of all parent-led activities, then we would all be neurotics, because you cannot get through childhood without a huge number of parent-led activities. And if it is supposed to be true only or especially in this case—if children do not really find *YBCR* or phonics flashcards, for example, interesting or enjoyable—then why think so?

As a general point, perhaps it is true that sometimes children go along with what their parents want, despite not really wanting to, because they want to please their parents. But any sensitive parent knows when a child is "going along to get along" and when he is genuinely enthusiastic. I am fairly sure that my little boy, at least, was often genuinely enthusiastic about my phonics flashcards, and he desperately wanted to watch *YBCR* for the couple months that we were watching it. He cried if we turned it off or refused his demands to watch it. What better sign of genuine enthusiasm could you ask for?

6. The vicarious achievement worry

> If I taught my tot to read, wouldn't this basically prove that I'm an overambitious parent, using my child as a proxy for my own ambitions? Wouldn't I just be feeding my own ego?

I think many parents resist very early reading because of a certain stigma attached to "early academics" as well as "hot-housing" in general. Parents—especially mothers, or so one can read in a *USA Today* article—can be very judgmental. Many have definite opinions on all sorts of child-raising questions, and are not afraid to express them. Since very early reading methods are newly in the public eye due to *YBCR,* and since they are controversial, it is easy for critical parents to try to crush the egos of those who are using these methods. The parent who is doing the unusual thing can be made to feel vain and overambitious, and reckless with the development of their children. No one wants to think of himself, or herself, that way.

Doing much "extra" for one's children, in terms of classes and educational tools, invites such accusations. Some expert opinion supports this attitude as well; there are some quite insulting assumptions about early-educating parents in books like *Miseducation: Preschoolers at Risk* and *Einstein Never Used Flashcards*

(not to say that these books do not also have a lot of very useful information and sound argumentation, which they do).

The authors of these books tend to lump the early teaching of reading in with the whole movement of "hot-housing" children, of getting them on the fast track, into the best preschools, doing everything they can to get them into "gifted" programs, taking music and language lessons, and filling their schedules with activities. The child is often in the car, being shuttled around, probably miserable and under pressure, and has little time for free play. (Cf. especially Elkind's *Miseducation,* Ch. 2.)

But let's take a step back and try to evaluate the matter a little more objectively.

The description "hot-housing" seems very puzzling when applied to *our* family, at least. My own boy has never been enrolled in a single class of any kind, though we have gone to group events such as library reading sessions for kids, and recently, a non-academic two-day preschool for socialization. We have no designs whatsoever on getting him into any prestigious schools and if he's behind the curve in some abilities (which he might be), I'm only a little bothered by that. Similarly, I don't see much evidence that the parents in the online support communities I'm part of engage in a lot of this sort of "hot-housing." Maybe a few do—at least one was asking about entrance exams for academic preschools—but most of them seem to me to be stay-at-home moms who essentially do home schooling before kindergarten. In fact, on a few occasions we have collectively taken offense at dismissive labels such as "hot-housing." We resent the suggestion that we are so demanding and competitive as parents that we are insensitive to our children's wants and needs.

Absent a really good survey or study of parents who engage in early reading programs, one cannot draw such harsh conclusions with much justification.

I suspect that the harsh prejudices about early-learning parents are due more to defensiveness on the part of the critics than any careful observation of parents. This shouldn't be surprising in the least. The critics believe themselves to be loving, caring, and intelligent, and so the last thing many of them want to hear is that they've missed out on the possibility of benefitting their children by teaching them to read in the first few years of life. For many critics, I suspect, to hear early reading programs praised, or even taken seriously, is to hear two insults of themselves: first, as a parent (and this no doubt goes for teachers and researchers too), you have not done all you could to support the children in your care; and second, you have merely conformed to tradition, when you think of yourself as independent-minded and open to good new ideas. In the face of such insults—which I do not believe and would never dream of making—the easy response is to attack the intelligence, morality, or sanity of those who sell and use such programs.

7. The too-much-video, too-early objection

> The American Academy of Pediatrics (AAP) recommends against any television before 24 months. Insofar as you support *YBCR,* aren't you recommending something that could cause attention problems later?

How to respond to this depends on the grounds for the prohibition. The report from 1999 in which the AAP issued its recommendation stated:

> Pediatricians should urge parents to avoid television viewing for children under the age of 2 years. Although certain television programs may be promoted to this age group, research on early brain development shows that babies and toddlers have a critical need for direct interactions with parents and other significant care givers (e.g., child care providers) for healthy brain growth and the development of appropriate social, emotional, and

> cognitive skills. Therefore, exposing such young children to television programs should be discouraged.

The researchers' worry is that children who are exposed to television early will thereby be deprived, during prime "active" time, of loving human interaction, so essential to flourishing. Screen time separates the child from their best possible teachers: their parents and caretakers. Now, if that were all there were behind the prohibition, it seems that looking together at *Your Baby Can Read* for 20 minutes per day, or talking through a few PowerPoint presentations that are basically digitized flashcards, would surely not do much harm. When my son was a baby, whenever we looked at a video (which was very infrequent), he was sitting right next to either my wife or me (or both of us), and we talked to him about what we were seeing. He seemed to get quite a bit out of this interaction. Many educational videos for babies encourage parents to sit with the children, repeat the words, and essentially "participate" in what becomes more of a social interaction than a strictly passive experience. Personally, I am very uncomfortable with letting the television, even with an educational video playing, act as "babysitter."

Reduced amount of face time is not, however, the only concern that the AAP has. A 2004 study available on the AAP website found an association between 1-3 hours of daily television viewing at the ages of one and three and an elevated incidence of ADHD at age seven. One explanation suggested (not asserted) by the researchers is this: "In contrast to the pace with which real life unfolds and is experienced by young children, television can portray rapidly changing images, scenery, and events. It can be overstimulating yet extremely interesting. This has led some to theorize that television may shorten children's attention spans." (p. 708) The researchers, in their discussion, make several concessions, including the usual (but important) one that association does not establish causation. But the most important concession is this: "Finally, we had no data on the content of the television being viewed. Some research indicates that educational

television (e.g., Sesame Street) may in fact promote attention and reading among school-aged children." (p. 712) In other words, this study, which was much celebrated for debunking, *specifically,* educational videos for babies, in fact did not even control for educational content. As JunkScience.com pointed out, the study's sample size was also very small.

In 2007, some of the same researchers published another study, this time specifically including the categories "baby videos" and "children's educational shows." This study claimed that there was actually an *inverse* correlation between the viewing of such videos and language scores (according to the Communicative Development Inventory). In other words, the more children watch such videos, the *lower* their language development. In a press release, the study's lead author stated, "There is no clear evidence of a benefit coming from baby DVDs and videos and there is some suggestion of harm," and singled out the *Baby Einstein* and *Brainy Baby* series. In response, the Walt Disney Company pointed out that the study itself did not support certain dramatic claims in the press release. For example, the study's telephone interviews with parents did not establish that many, or even any, parents had actually used the *Baby Einstein* videos. The company was surely right to point out that the *content* of the videos mattered; a vague category that lumps all "baby videos" together cannot be used to establish anything about every baby video in such a broad category. The category as a whole might be slightly pernicious, while certain parts of the category are very beneficial.

After all, surely it is the case that those who expose the tiniest tots to television are more likely to be heavy television users, and not such big readers. But there is an *exception,* perhaps, in those parents who use the television *only* for the highest-quality educational material.

I also want to point out that it was perfectly reasonable for Disney to claim that *Baby Einstein* should be distinguished from the rest of

the very broad "baby videos" field. If that's the case, surely *Your Baby Can Read* and similar videos have a stronger standing to offer a similar reply, because unlike *Baby Einstein* and the other baby videos out there, these videos appear to be able to teach tots how to read, perhaps with enough supplementary activities like book-reading. That's a very significant difference, and can be observed after a period of months, not years. This then raises the question —even supposing the researchers have found a correlation between *some* baby videos and lower language scores—of whether any such connection can be found between *other* sorts of videos (like *YBCR)* and language scores.

It is worth pointing out that one recently-published longitudinal study (Schmidt, et al., 2009), with 872 subjects, found no correlation at all between watching television (of all kinds) in infancy and language and visual motor skills at age three.

This section has been rather long and complex, so let me put one essential point more simply. A worry is that watching videos before age two will reduce a child's attentional and language abilities. But *some* of these videos (and, perhaps, other screen-based activities) can cause children to learn how to read years before their peers. Do *those* videos (and presentations) reduce a child's language abilities, or improve them? There is as of this writing no serious, published research supporting any answer to *that* question, as far as I know.

I'd also like to point out, perhaps apropos of nothing, that we do not get television reception where we live, nor do we subscribe to cable or satellite TV. We let our boy see videos, on all media, less than an hour per day on average. One can be a proponent of educational video, even for babies, and broadly opposed to television and its many mind-numbing effects.

8. The creative free play objection

> Early teaching of reading (and other information such as is imparted by Doman flash cards) is unnatural and takes time away from play. Since gaining experience through free, imaginative play is the best way for under-fives to learn, what's the need for this unnatural force-feeding of mere information?

There is another quite reasonable-sounding objection, one of the stronger ones, which I want to spend significant space addressing.

Most early childhood researchers take the position that "academic" learning before school age is inappropriate. Maybe the most common view among academics of early childhood learning is that young children learn best from imaginative and social play, and by finding things out for themselves, "naturally." Researchers who take this view heap scorn upon early learning programs like Doman's and Titzer's if for no other reason than that it distracts from the real "work" of childhood, which is play. In terms of preparation for school, they recommend simply a "language-rich" home and preschool, with plenty of conversation, playful interaction, and book-reading. But trying to teach very young children to read, exposing them to flashcards, or engaging in other such formal or "academic" learning, they maintain, is a wasteful and potentially harmful distraction. (I put "academic" in quotation marks because I doubt that those who dismiss all learning they call academic are capable of defining the word in a way that does not exclude reading and other innocuous or beneficial activities.) Examples of researchers taking this view are Kathy Hirsh-Pasek and Roberta Golinkoff, academics and co-author/editors of such books as *A Mandate for Playful Learning in Preschool* and *Play = Learning*.

There are a couple of things to say about the "free play" approach, but one is most important. It is that children who are exposed to very early reading programs can have *plenty* of time left over to play, and to find things out for themselves, because these programs need not occupy much time at all. The Doman method

has parents show flashcards to their under-five children for only a few minutes at a time, a few times per day—the whole time outlay might be something like 15 minutes. Similarly, Titzer recommends that the *Your Baby Can Read* videos be shown twice per day; the videos are about 20 minutes each. (We watched them just once per day for a while, and soon were watching them less often.)

Another critic, Trevor Cairney, articulates the point this way: "in introducing a program like *Your Baby Can Read!* you are essentially devoting time to structured repetitive learning of a limited type that would probably replace other forms of learning. I asked parents to consider what they would stop doing while using the program." In other words, even a few minutes spent on these programs is time taken away from superior methods of learning for the under-five set, such as creative play.

But this response seems easy enough to rebut. Let's suppose that 15 or 40 minutes per day is taken away from creative play. But also suppose that, by spending time in this way, the children learn to read years before they would otherwise. Surely, if the programs have that effect, then taking those minutes away from creative play might be worth it. It is at the very least *plausible* to suppose that those precious few minutes will not provide children the advantages that learning to read so much earlier would provide.

Critics might also reply that the parents will not stop with just one video, that they too often park their children in front of the television-babysitter for hours, and that really zealous parents try to foist "academic" learning onto their children for much longer than 15 minutes or 40 minutes per day. That, then, really does cut into play time. Moreover, the notion that play is a waste of time, even for children, is hardly unheard-of.

Perhaps. But then the complaint is best made about how *some* parents use the programs, not about the programs *as intended to be used*. Tarring all of these programs of early education with the bad habits of some parents is not, or should not be, persuasive.

Ideological opponents in every discipline frequently try to get the best of the other side by picking the worst cases and exaggerating flaws, but such rhetoric should not be persuasive.

I find it telling that, when I have occasionally approached reading experts, privately, to evaluate what I've done with my son, they have forbore to make such arguments. They have said, rather, that we're different, that I could be trusted to pursue the programs in a reasonable way, and that my son seems to be gifted. The implication is that others would go overboard and would (perhaps despite themselves) end up pressuring their average-intelligence children, not leaving them any time for unstructured free play. My reply is that, in that case, their objections are not to the methods themselves but to *other* more obviously harmful practices of people who wrongly apply the methods. Such objections do not seem relevant to scientifically evaluating the methods. Surely, what we want to know about is whether, when the methods are *correctly* used—and that includes leaving children plenty of time for free play and creative exploration—whether on balance children will be better or worse off.

To this, I can imagine a reply: "This is how things are in the social sciences, education, and medicine—we must evaluate real-life situations and probabilities, not theoretical methods that no one ever correctly executes. In other words, there is no point in evaluating Titzer's and Doman's methods independently of their broader social context. Besides, it is certainly true," I imagine the critics going on, "that the sorts of parents who undertake these programs do not stop with just these programs. They are part of a whole culture of wrongheaded acceleration and harmfully pressuring children into early achievement." (Cf. Elkind's *Miseducation,* especially Ch. 4.)

Tarring all parents who follow such programs with the brush of "hot-housing" is a serious mistake, as I said earlier. But let me point out now that this is actually a deflection of the argument. The fact of the matter is that teaching a child to read *can* be done

without taking much time away from free play, which is true of how we have taught our son, and to say this is to defang the *present* criticism entirely.

Let me re-present this objection in a different way now. One prominent strand of educational philosophy holds that children learn best when they discover things for themselves. Again, this is at the core of Rousseau's educational naturalism, and it later took the form of such educational movements as the project method and constructivism. An essay like this one is not the place to try to evaluate such theories and methods. I just want to make one concession and then one observation.

My concession is that, as with most vague philosophical positions, there is surely considerable truth "to" educational naturalism (and constructivism). Everything else being equal, when a student discovers an answer for herself, and when she is personally motivated to find it out, she knows it better. Who could disagree? But the problem is that such platitudes, while inspiring perhaps, are too vague to prove anything.

My observation is that, vague philosophical theories aside, many children who use the methods under discussion can actually *read* at an amazingly early age. That is not theory but observation. Most of these children would not be able to read unless they were exposed to the methods. So, at least when it comes to the *narrow* question of the most efficient way to teach a very young child to read, we are ultimately being asked to compare vague theorizing against a growing list of individual success stories. You might dismiss the latter as "anecdotal evidence," but only if I am allowed to dismiss your naturalism and constructivism as "vague philosophical speculation."

The fact of the matter is that nobody is going to be convinced by debating either the anecdotal evidence *or* the speculation. What are really needed are carefully-controlled, long-term longitudinal studies of these programs. I predict that such studies will

demonstrate that children generally benefit by being taught to read at a very early age. I don't *know* that the studies will have those results, obviously; but it certainly seems like a very reasonable position to take, before the actual study results arrive. (More on that in Section 12.)

It's worth mentioning another important objection, similar to but not quite the same as the foregoing, which I especially associate with the Unschooling movement. Some parents and educators, especially those involved in alternative schooling, feel that it is deeply important that we let our children discover (or construct) knowledge for themselves as much as they can. It is best if they do so apart from any prescribed curriculum, following their interests instead. In this way, not only do they gain a deeper understanding due to their personal interest and motivation, they learn the important lesson that life is what we make it, and ultimately we choose our own way. If we teach our children directly, we rob them of the opportunity to learn for themselves. They feel bored and pressured—or so goes the argument—and that is not conducive to solid learning and independence. Not only is it an instance of much-hated direct instruction, it is supposed to rob very young children of time and energy they should use to get out exploring and learning from the world first-hand. I think this is why teaching children to read at an early age, and in other ways "accelerating" their learning, has been obnoxious to a few Unschoolers I have come across online who have commented on it. (They may have been Unschooling purists.)

There are actually two operative principles and objections here, which I want to discuss separately. One principle is (1) children should be allowed to choose their own interests as much as possible—an issue of curriculum. The corresponding objection is that small children might not or cannot choose to be taught how to read, and we should not "force" them to learn. The other principle is (2) children learn best when teaching themselves, constructing knowledge for themselves—an issue of educational

method. The corresponding objection is that flashcards and videos are instances of the much-despised "direct instruction."

To (1) there is a straightforward reply: babies and toddlers are generally "easy" when it comes to choice of subject matter. Unlike older children, most of them do not have special topics that they are passionately interested in pursuing. This is not to say that they don't have preferences and favorites—of course they do—but they can be typically entertained in many different ways. Most things are fascinating to them. For this reason, babyhood and toddlerhood are arguably the "prime time" to teach reading. I was able to do it when my boy was sitting at the dinner table (admittedly a captive audience) by running my finger under the words as I read many books to him, and also by showing him flashcards. Resistance to instruction—and to *everything*—becomes more of a problem in the "terrible twos" and increasingly independent preschool years. (At age four, my boy is one of the most independent kids you can imagine. Learning a lot in his early years did not serve to drain his spirit—quite the opposite!)

But even then it is very possible to *develop* interest in a topic, as every good teacher knows. Well-chosen videos, attractive nonfiction and fiction books, and other media can spark interest in a subject. So can well-designed experiments, demonstrations, field trips, and toys. Of course, the way to spark an interest in reading itself is to read a tremendous amount to children when they're little—most children love it—and then they quite naturally gain some curiosity about letters and words and books. As for *Your Baby Can Read* and Doman flash cards in particular, I've seen many parents praising these methods precisely because they are so exciting to their children. The parent in these cases is very far from foisting a subject on an unwilling student. Of course, not all children are equally enthusiastic; for some who have written on online forums, *YBCR* and Doman flashcards leave their children cold. But again, both Titzer and Doman speak strongly *against* foisting their materials on any resisting child.

A full discussion of (2) rests on the whole constructivism-vs.-direct instruction debate, which I cannot take the time to engage. But I will say this much: speaking in broad generalities, there is little wrong with teaching children directly, *per se*. Children frequently *want* direct instruction (evidence: they ask lots of questions and are impatient if we do not answer them directly; many of them love books, which teach them directly). If done right, direct instruction can increase their curiosity, not kill it. Indeed, I would argue that one cannot become a well-educated person without spending many thousands of hours receiving "direct instruction" in the form of book-reading.

Ultimately, children—and all of us—want to study things that they can take an active interest in. It is their interest, the "romance" they have with a subject, which primes them to absorb knowledge, creates their curiosity, and fires them up to ask questions and seek out answers. At bottom, such interest does not require "constructing knowledge." But the converse is true, that is, a desire to learn for oneself, or to "construct knowledge," requires an active interest in a subject. The great appeal of Unschooling is precisely that it respects the fact that students learn best when pursuing their own interests. But an excellent teacher, or parent, takes the time to cultivate a child's interests, does not insist that he study something currently uninteresting, and feeds his active interests "directly." That, anyway, is what I try to do with my own little boy. We also do our share of experiments and exploration as well, and I ask him thought-provoking questions all the time, of course. I respect his interests greatly and I feed them, and when he shows no desire to study something, I underemphasize that.

9. The conceptual maturity objection

> What's the rush? Won't reading skills will be better learned later, when children are ready to take it on board? Earlier does not equal better. After all, children who absorb relatively advanced knowledge at an early age will have to use immature faculties, or conceptual storehouses, for doing so. They will not be able to understand what they read well enough.

The notion of educational readiness, and reading readiness in particular, has been around for a long time. Back in 1957, Dolores Durkin was able to do an extensive review of a then-already vast literature on the subject, as she reports in *Children Who Read Early*. The very notion of reading readiness seems to imply an objection to very early reading: children are usually "ready to read" around ages 5-7, so babies and toddlers are of course not ready.

To develop this objection, I'll examine a recent example. Trevor Cairney, in a very useful blog post, finds three researchers who "are amongst those who have stressed that children need time and appropriate learning strategies to develop normally. [David] Elkind also warned against the temptation to pressure children with simplified learning tasks at a very young age which inevitably end up relying on lower-level cognitive processes such as memorisation, repetition and simple word and sound recognition that could ultimately be at the expense of activities with greater richness and complexity."

I find this personally interesting. I found that, by introducing words systematically on flashcards, my son learned those words very well and used them frequently in conversation. Moreover, after a wide variety of early literacy activities in the first three years of life, he was able to appreciate books like *Stuart Little* by his third birthday: we read it only when he was enthusiastic about reading it, and we finished it fairly quickly. The sorts of conversations we had about our reading—the questions he asked and answered, and the advanced grammatical constructions he used (would you believe the subjunctive mood at age 3?)—belie

the suggestion that learning to read early would harm his facility with language. So really, what should I make of the claim that early reading will "ultimately be at the expense of activities with greater [literacy-building] richness and complexity"?

Perhaps I am not responding to Cairney's point, but this is partly because his point is not altogether clear. When he worries that early reading methods are used "at the expense of activities with greater richness and complexity," what "activities" does he mean? Suppose the point were *merely* that the time spent in learning to read with *YBCR* could be better spent by, just for example, reading books. This would actually be a puzzling thing to say, because I have typically spent over an hour a day (all together) reading to my boy, and the total time spent watching *YBCR* or on flashcards was a miniscule fraction of our total "literacy" related activities. Is the point is that we should have spent the time we used on *YBCR* and on flashcards on *more* reading? I am very skeptical that he would be farther along in his language abilities in that case. After all, he can *read* now, and that opens up books and other texts to him in daily life and when neither his mother nor I have time to read to him.

If the point is, instead, that a child's reading ability will suffer simply because it is based on "lower-level cognitive processes such as memorization," I suppose he might mean that children will develop habits of memorizing whole words and fail to learn phonics. Indeed I must concede something here to Cairney: in discussions with parents on BrillKids.com and the TeachYourBabyToRead mailing list, I have sometimes come across parents who say that they started their babies with *YBCR* or Doman flashcards, and their children seem to be limited to the words they have memorized. Some, not all, of the children do not seem to be breaking the phonetic code, yet. The typical advice that I see and give in these forums to try a phonics program. Indeed, my son learned phonics very well beginning at age 22 months, so that by age 3½, he was able to decode the Preamble and the First Amendment of the Constitution (not *understand* these

texts, of course). Some months after I first posted them, quite a few parents have praised my phonics flashcards because they have given their children progress that was not available to them using only other early reading programs.

So Cairney's point might have some purchase for "whole word"-only programs (his blog post was directed at *YBCR*). But as I and several other parents in early reading groups have decided, it is possible to supplement those programs with more systematic phonics, and at a surprisingly early age, too.

I suspect that our critics may also have a simple either-or choice in mind: *either* the educational videos and flashcards, *or* books and creative play. Given that choice, I too would opt instantly for the latter. I think books are far and away the most important element to emphasize in education. This choice might make sense if you are choosing between very imperfect preschools. But when it comes to evaluating at-home education methods, the choice is of course a false alternative; we may do *all* of these things with gusto, in a way that our children can actually appreciate and learn from. That the approach I took.

To this, I believe the critics of early reading might want to reply, "That's very nice for you, but most working parents do not have the luxury of spending so much time with their children. If they watch educational videos, they will pat themselves on the back for doing something educational with their kids, and good enough. They will not engage in the sort of rich literacy activities that you have. So for them, time spent on flashcards and videos is essentially time taken away from creative play. For them, there really is more of an either-or situation."

If that's the reply, then I want to know on what basis this characterization is made. Unlike most critics of early reading programs, I have spent many, many hours conversing online with parents who use these programs. Rarely does such a parent complain that she does not have time to read to her children, and

it's either one or the other. I do recall one such person, a single working mother, I think; she was asking the community for advice about how to spend the precious few hours after getting the kids home from daycare, and I opined that she should spend the time on reading. But she was a rare case. I think most people who invest in tools like *YBCR* are committed to creating home environments of rich literacy. It is bizarre for our critics to assume otherwise: if we are trying to teach our *babies to read,* of all things, it should *not* be hard to assume that we are creating rich literacy experiences.

Jane M. Healy offers a related argument in her excellent introduction to child developmental psychology for parents, *Your Child's Growing Mind* (p. 266f). Healy's version of the argument may be one of the strongest in our critics' arsenal. She says that full-fledged reading, as opposed to mere decoding without really getting the words one is mouthing, requires a rich storehouse of vocabulary and concepts, which are not well developed for most children until they are of the usual reading age. Until a child is able not only to decode but really comprehend a text, asking the child to read that text will be very dry, mechanical, and unrewarding. Such a child, if asked to read texts he cannot really appreciate, will come to associate reading with confusion, difficulty, and above all boredom.

I concede much of this argument. It speaks to the personal experience of all of us—who likes to read dry stuff he can't understand? It speaks to memories of our own childhoods, being asked to read books that are too difficult for us, not understanding many words. It also describes my experience with my own son, on those *few* occasions when I have asked him to read texts that were well above his level. While at first he would seem to revel in his ability simply to decode the text, after a few sentences he lost patience for the task, and he seemed rather disgusted and would refuse to go on.

As persuasive as this argument seems, it does not clinch the ultimate conclusion that children should not be taught to read as babies and toddlers. This disconnect is for several reasons. First and most importantly, I believe that many parents who use early reading methods (not all, I'm sure) also read a tremendous amount to their children, and are deeply concerned about keeping their children's motivation high. So it is reasonable to assume that such parents rarely ask their children to read books they cannot take on board. Second, both Doman and Titzer have methods and tools for rapidly increasing vocabulary, for growing "the mental garden" to use Healy's phrase. Also, BrillKids and its support community have developed a huge number of vocabulary-boosting presentations, and I have tried to do the same thing with my PowerPoint presentations. Healy does not seem to take into account that developing the ability to comprehend texts is a crucial part of many early learning programs.

Third, consider the fact that my son, like other early readers I've come across online, avidly reads from *certain* books by himself. Evidently, when I'm not reading to him, or asking him to read something to me, he finds his own level. If reading were a dry, boring task for him, he would not sit down with copies of Magic Tree House books, as he has done, and flip through them to re-read the parts he liked. (And no, he was not just looking at the pictures. I often watched his eyes making saccades: he's reading the words, *a lot* of them.) I do not think that my boy is unusual in this regard; other parents with early readers report that theirs do pick up books on their own and take a lively interest in books. In short, I believe that my boy and others like him can understand pretty well the sorts of texts he is personally attracted to. I am not claiming that he can always answer the sorts of "reading comprehension" questions that are asked of, say, third-graders in their Language Arts units. (For what it's worth, by his fourth birthday, he could answer the "Brain Quest" reading comprehension questions for first graders pretty well.) My point is

that he wouldn't be spending a lot of time with these books, on his own, if he didn't get a lot out of them.

So I can't agree with Healy's ultimate conclusion. But her point is well taken as far as it goes. A child should not be asked to read what he cannot understand, and there might be problems if a parent insists on teaching a child to read without also doing a tremendous amount of reading and other vocabulary-building activities. For me, these have been crucial take-aways from our experience and my own amateur study.

In email to me, Healy put her argument another way, in terms of brain science. Mature reading is an activity done with the frontal lobe, which is not developed in under-fives. Hence, we can expect that children will do more "word calling" because their reading is done with the temporal and occipital lobes, which are limited areas of the brain (posterior areas). If a child learns with those more limited areas of the brain, the worry is that he may be stuck on that level, and not read with the higher, more sophisticated processes that will develop later in the frontal lobe.

Not being a brain scientist, I don't pretend to be able to answer this properly, and so will only suggest a few possible replies. First, if this worry were valid, we would expect to see many cases in which kids began reading at an early age and ended up being *stunted* in their academic growth later on. But I haven't encountered any evidence of such cases, and the anecdotal evidence is heavily to the contrary. In any case, the analysis of what's going on in the brains of early readers is speculative, and if longitudinal studies reveal that very early readers do better than their peers in the long run, we need not worry so much about what is going on "under the hood."

Second, my understanding is that the brain is very plastic, and as new areas of the brain "come online," so to speak, there are rapid periods of development in which they are hooked up to what is already there. Then it is just a matter of connecting up the

reflective abilities of the frontal lobe with the simpler, but efficient abilities of the posterior areas, where Healy says decoding is done in early-reader brains. Perhaps, if early readers are unusually *quick* readers—as my son is turning out to be and as other parents report of their own—the fact that they use more "limited" areas of the brain to do the decoding is an advantage. (But again, I am only guessing; I am no expert on this stuff, as Dr. Healy is.)

However all that is, I wish a researcher would survey (longitudinally!) the parents of children who have little readers who can read books aloud. It seems to me that there a straightforward research question to ask here: how much does your early reader read alone or to you? Does your little reader actually pick up books and read them? Does he or she read them to you, or alone, silently or out loud? This would indicate something about how well they understand what they read, because no child is going to be motivated to read much of what he does not understand.

Here is my answer: every day, my little boy has a book in hand and is thumbing through it by himself. His habit of doing this varies from day to day and week to week; sometimes he always seems to have a book in hand, while other times, it's something else (usually a Lego creation). He tends to "read" more in the mornings, I've noticed. He frequently totes around a book I've recently finished reading to him. He still occasionally picks up a book and reads some to his mother. For example, shortly after his fourth birthday he was reading to her a little from my copy of Heinlein's *Citizen of the Galaxy,* of all things. (I haven't read this to him; he just grabbed it from a bookshelf.) But for whatever reason, he doesn't read so much to me. My hypothesis is that he does not want me to stop reading to him, so when he reads to me, that makes him nervous. Also, it is much more entertaining for me to read to him than vice-versa. For me he'll occasionally read bits and pieces we're reading together; for example, he routinely reads all of Jack's notes from the Magic Tree House books, as well as the last page of whatever book we read. For a while

around his fourth birthday, there was a little "naughty" thing he did—at mealtimes, I stopped my reading in order to take a bite, and he would grab the book and read ahead silently and then gets a sly look on his face. Then he would ask a question about what he'd just read. I suspect he did this to prove that he could read faster than I was reading to him.

Unfortunately, one thing he rarely does is to sit down by himself, without being asked, and read a book from beginning to end. When he was three, he did that probably only a half-dozen times that I know of. He never read a chapter book by himself from beginning to end until just past his fourth birthday.

While writing this, I decided to do an informal, unscientific survey. I asked parents on BrillKids.com to report their early readers' self-reading behavior. One mother said, "My soon-to-be 2 year old likes to read with me (she reads while I point out the words) and also likes to read alone." Another wrote: "When she is reading with me, she will read maybe 20-25% of the books aloud, if I use my finger to help her follow the sentences. These books are about a Level 1 reader (about 1-3 sentences per page, 5-8 words per sentence, again less than 10-12 pages long). … I would say that 99% of reading is initiated by my dd [daughter], she is the one bringing books to me, or asking me to sit and read with her."

As for us, in June 2010 just after turning four, my boy brought two Berenstain Bears books to the table and read them silently to himself, refusing to be read to. Some days later, I decided to sit down on my own reading chair and read a big thick book, and so soon my son had brought Magic Tree House #3, *Pirates Past Noon,* to the chair and re-read the first six chapters. As far as I can tell, he didn't skip anything. A week later he decided to read to me, quite enthusiastically, the entire 63-page Usborne version of *Beowulf* at bedtime, complete with voices. So he seems to be gradually becoming an independent reader—and so, presumably, a reader increasingly capable of understanding what he reads.

10. The sapped-motivation objection

> Reading before a child's brain is developmentally ready will sap the child's motivation. Won't the child end up being confused, frustrated, and unmotivated despite everyone's good intentions?

Here is another way into the many-sided "reading readiness" objection. A child who is asked to read when he is not yet ready will inevitably have a bad experience and—this is the point—be turned off to reading. He will lose motivation to read and to learn. So early teaching of reading is actually self-stultifying: it defeats the very goal of excellent literacy skills. While the previous objection concerned the effectiveness of early reading on *comprehension,* the present one focuses on the impact of early reading on *motivation.*

This worry is articulated in this article, for example. The concern there is actually about kindergartners who are having a rough time decoding text.

The article's source is *Boys Adrift* by Leonard Sax (a very interesting recent book, by the way). In Chapter 2, Sax articulates a common criticism of acceleration: children, especially boys, who are not developmentally ready to begin learning to read are frustrated by attempts to make them read. They would rather play. Such boys are often put in the slow group, and the teacher spends more time with the "smarter" kids, while the "slower" kids, mostly boys, get the message that the teacher dislikes them and finds them stupid. They are discouraged from the very start precisely *because* of inappropriate acceleration. To clinch his point, Sax trots out an old warhorse, Finland, whose students begin reading at age *seven* and yet beat American students hands-down by their teen years. Sax suggests that the reason Finns read better later on is that they are all "ready" at age 7, so the kids who would have been turned off at age 5, in the American system, have a positive outlook toward school when they start later.

There are many things to say here; I will go through them quickly rather than risk tedium. First, Sax's explanation for the Finnish difference—that Finnish children are taught when "developmentally ready"—is not the only possible explanation. Another is that Finns are taught a great deal of vocabulary at home before they go to school, and two years in a Finnish home at ages 5 and 6 might well be worth much more, educationally, than two years in an American school at the same ages. It is, after all, now well-known that home schoolers achieve better academic results than their traditionally schooled counterparts; for a review of some of the research, see this article. Another point is that, traditionally, English language schools begin teaching reading earlier than some other languages like Finnish precisely because, unlike those other languages, English is much less of a phonetic language.

I must also mention that common American methods of teaching reading cannot be ruled out as explaining the differences in outcomes. As Durkin points out in her teacher textbook, *Teaching Young Children to Read,*

> [Y]oung children can become readers in ways that are playful and interesting to them. … [But] a growing number of kindergartens—for both good and questionable reasons—were beginning to teach reading using procedures that did not seem to take into account the age of the children… The result for these kindergartens is a preponderance of whole class instruction depending mostly on basal readers, workbooks, and drill, with little or no attention being given to the obvious fact of great differences among any group of five year olds. (pp. 4-5)

Note that Sax barely mentions the teaching of reading to preschoolers, much less babies; his focus is on the relatively recent practice of teaching reading to kindergartners rather than first graders, and his argument rests on the contention that the kids who are exposed too early to reading instruction *do not*

successfully learn to read. But what conclusion can be drawn from *that* about children who *do* successfully learn to read by age two? None. Indeed, as Durkin stated in her classic studies of early readers, *Children Who Read Early* (published 1966), "Even after six years of school instruction in reading, the early readers [i.e., those who learn to read before entering kindergarten], as a group, maintained their lead in achievement over classmates of the same mental age who did not begin to read until the first grade." (p. 133) In other words, the students that Sax is describing are those who *struggle* with reading at an early age—not those who have success.

But, you might ask, how could such tiny students possibly *fail* to struggle, much more than kindergartners, of course? It so happens Sax wrote something very much to that point:

> It now appears that the language areas of the brain in many five-year-old boys look like the language areas of the brain of the average three-and-a-half-year-old girl. Have you ever tried to teach a three-and-a-half-year-old girl to read? It's frustrating, both for the teacher and for the girl. It's simply not developmentally appropriate, to use the jargon of early childhood educators. You're asking her to do something that her brain is just not yet ready to do.
>
> Trying to teach five-year-old boys to learn to read and write may be just as inappropriate as it would be to try to teach three-year-old girls to read and write. Timing is everything, in education as in many other fields. (p. 18)

Such arguments are going through the minds of some critics when they hear suggestions that you "teach your baby to read." These arguments are rooted in experience, but experience that is largely irrelevant. Of course if you try to teach babies and toddlers in the way that six-year-olds are traditionally taught—with textbooks and worksheets, or software that emulates the same thing—then they might well be completely puzzled and frustrated. But that, of

course, is not our suggestion. Our suggestion is that you follow methods that *have* been used with good success with babies and toddlers, as discussed in Part 1. As bizarre as it may sound at first, it is actually *easy* for many babies to learn to read with these methods. It needn't be a struggle, and it can even be *fun*.

11. The "miseducation" objection

> Giving formal instruction at too early an age is "miseducation." If nothing else, it kills the natural curiosity of children when they are forced to do what bores or confuses them. Doesn't teaching babies or toddlers just compound the errors of the whole misguided "academic preschool" trend?

I associate this objection, closely related to the foregoing, especially with David Elkind. Elkind claims, in Chapter 1 of his book *Miseducation: Preschoolers at Risk:* "No authority in the field of child psychology, pediatrics, or child psychiatry advocates the formal instruction, in any domain, of infants and young children." (p. 8) This would seem to be a very serious count against baby reading programs. The criticism makes heavy use of the notion of "formal instruction," which I will analyze here in some detail.

Elkind bemoans two things: (1) the tendency to put very young children into formal learning classes (such as academic preschools), and (2) home programs like Doman's (he cites several others as well) which feature a formal training element. These are, however, very different, and Elkind's book does not evince an understanding of the relevant differences.

I am no great fan of academic preschools; my wife and I did not have the slightest desire to send our boy to one. I find myself agreeing with Elkind that much academic preschooling probably constitutes "miseducation," and for just the reasons he offers. I mean preschools that generally teach students together in groups, doing similar things at the same time, prescribing subjects and activities, and otherwise *directing* the children to learn what teachers (or the preschool franchise's central office) prescribe,

regardless of their individual desires and abilities. One of my personal pet peeves about educational content is that the sort of materials developed for teachers to use with groups of youngsters tend to be carefully contrived and repetitive, to make sure that everyone from a diverse group of children learns all the concepts. But the systematicity and repetitiveness also makes the materials boring and requires a long attention span, and is therefore exactly the wrong thing to inflict on preschoolers. Elkind very plausibly claims that a child forced in a group situation to learn with such materials could cause "psychological damage" (p. 14) in the sense of interfering with the child's healthy self-esteem and motivation to learn later on.

But I fail to see what this has to do with teaching an individual child at home to read with flashcards and videos—particularly when the parent insures that the child is interested in the materials, as ours was. Insofar as Elkind's is primarily an objection to the academic preschool trend, and in favor of "let little kids do what they want" child care, it really seems irrelevant to the teaching of reading as I've done it with my own boy.

Elkind, however, spends several pages arguing that Doman, and some others who have written books explaining how to build your baby's brain, also uses potentially harmful "formal education" methods. My question is *what exactly* is "formal" about methods like Doman's, or for that matter the methods that I have used? And more to the point, in exactly what ways does the "formality" of these methods threaten some psychological harm?

To establish his point, Elkind takes from several quotes from early education curriculum designers (on pp. 11-13) that make their methods sound awfully "formal," in the sense of artificial or contrived, involving several steps that require the child's cooperation (or at least engagement). For example, from Doman he quotes these instructions:

> Now simply hold up the word mummy, just beyond his reach, and say to him clearly, "This says Mummy."
>
> Give the child no more description and do not elaborate. Permit him to see it for ten seconds.
>
> Now play with him, give him your undivided attention for a minute or two, then present the word again for the second time. …

I am not going to try to defend Doman's specific methods here. Doman's books offer what look to me like unnecessary levels of prescriptive detail. I, like most of the parents I've talked to online about Doman's methods, take his specific recommendations as broad hints at best. But the methods themselves are very much like play, as you can see even by reading the supposedly-damning quotation from Doman above.

Does this, and actual practices of baby- and toddler-teaching parents, constitute "formal instruction" in the sense that Elkind finds dangerous? Unfortunately, Elkind never defines the term, at least not in *Miseducation*. Again, I wonder: was I necessarily engaging in "formal instruction" when, for a couple minutes, I showed my little boy some flash cards, and he read them to me? I don't think so. It was more like a game.

There is no need to focus further on that word, because Elkind helpfully offers (p. 10) a list of five "concerns" about formal early education, endorsed by a roster of early education organizations (see The Early Childhood and Literacy Development Committee of the International Reading Association, 1986). Let us see which of these five points, if any, make sense to apply to Doman's method, Titzer's, or the eclectic method I followed. The indented text that follows is quoted from Elkind's own summary of the statement.

> 1. Many pre-first-grade children are subjected to rigid formal prereading programs with inappropriate expectations and experiences for their level of development.

I'll examine the language here in some detail (my apologies if this is tedious). First, the accusation of "inappropriate expectations" is question-begging in this context: we are examining the whole issue of *whether* it is appropriate to expect babies to learn to read using the programs in question. So let us put "inappropriate expectations" aside. Then we have only to ask whether, in the baby reading programs under examination, children are subjected to something "rigid" and "formal." The notions of rigidity and formality are very slippery and vague. Again, showing some flashcards that are interesting to the child, or showing an entertaining video, does not strike me as doing something necessarily rigid or formal. It can be like a game, not a chore. Moreover, being "subjected" means that a child is either resisting or is not fully on board, anyway. But all the methods under discussion are quite clear: if the child is not enthusiastic about the learning experience, *don't do it.* If a baby is cooing excitedly, or a toddler is looking on with evident interest, it is misleading to say they are being "subjected" to something.

> 2. Little attention is given to individual development and individual learning styles.

This might, perhaps, be made as a criticism of Doman's methods, because they are relatively prescriptive, and it is difficult to tell whether a baby is absorbing the information until he or she begins to talk. But even in that case the criticism is not very strong, because the teaching is one-on-one, and instruction occurs only when the children are enthusiastic about it. The criticism simply does not apply to Titzer's videos and other materials, because Titzer advises parents to use a wide variety of early literacy experiences. The approach I've taken with my own boy is even more eclectic; I actively seek out what seems to be working best.

He happened to be really enthusiastic about *YBCR* and was quite taken with my phonics flashcards, which I imagine means these tools were coherent with his "individual learning style."

> 3. The pressures of accelerated programs do not allow children to be risk takers as they experiment with language and internalized concepts about how language operates.

This item appears to be irrelevant to the early reading methods. The notion that the early reading methods discussed "do not allow children to be risk takers," etc., is a non-starter. It seems to be describing preschool group work and classroom instruction, rather than one-on-one programs. Indeed, the pattern I have seen in my own child and that of other children I read about online is that learning how to decode text emboldens children's use of language. My boy has used words he came across in reading, and, by the time he was three, he picked up any reading material lying about (such as advertisements or advanced books) confidently and gave it a try. He is also an absolute chatterbox and was constantly "experimenting" with language. Why would the use of programs like Doman's or Titzer's make this *less* likely, rather than more?

> 4. Too much attention is focused on isolated skill development or abstract parts of the reading process, rather than upon the integration of oral language, writing, and listening with reading.

This criticism might seem to have more purchase because learning to decode text—and, especially, inducting specific phonetic rules from many examples—does constitute focusing on "isolated skill development." There are several things to say here, but in the interests of brevity I will raise only the most important: this is a false alternative. It was entirely possible for me to spend a few minutes per day during meals to show my boy some flash cards, and in the rest of the time (which was, all together, much more of the time) reading to him, talking with him, helping him to

scribble, etc. These activities all together constituted integrated language training. If a parent were to do no other early literacy training than watching *YBCR,* or flashing some flashcards, then I would agree that this point would have some purchase: the programs would appear to be "formal" to that extent. But surely, it is not merely wrong in most cases, it is also insulting, to assume that parents who go to the trouble of teaching their little ones to read do not also routinely take the time to give them various other rich language experiences.

> 5. Too little attention is placed upon reading for pleasure; therefore children do not associate reading with enjoyment.

This point seems to describe what goes on in group settings, in which a teacher (or central office) picks a book that she hopes many of the kids will like. We have seen this in library reading times, which we have attended occasionally: the books are very hit-and-miss. Some librarians are pretty good at picking likeable books, but the unavoidable fact is that tastes even among little kids differ greatly.

My child seems to associate reading with enjoyment. I think that is because I never read anything to him that he does not say "yes" to, and I ask him to bring me books to read. I see no indication that other parents of very young readers often take a different approach.

To conclude this section, having carefully examined Elkind's proffered list of criticisms of too-early "formal instruction," I find that few or none of the criticisms has any purchase against the early reading practices described in this essay. The criticisms seem to be designed with group work in academic preschools in mind. The early reading programs discussed in this essay do not seem to constitute "formal instruction" in the sense Elkind described.

12. Does early reading really have long-term advantages?

> It's probably pointless. Won't other kids catch up when they're ready? Are there really any long-term academic gains?

Perhaps the most difficult objection is this: learning to read very early is pointless because it has no long-term gains. Children of comparable ability and background will quickly catch up when they are ready.

Such definitive claims are frequently made, but without evidence. In fact, hard-nosed evidence is lacking on *both* sides of the question.

Advocates of very early reading frequently claim that, by learning to decode the language, kids are given a definite long-term benefit. By learning to read at age two, for example—three or four years before they might start to learn in school—they increase their vocabulary and store of concepts, and begin to read books on their own, long before they would otherwise do so. They arrive in first grade not only able to read, but decoding at (for example) the sixth grade level. There is a lot of anecdotal evidence of this sort of thing.

Maybe it will help to explain this anecdotal argument a little more. Titzer and some other early childhood learning advocates state that the golden years for brain development and related learning, including language learning, are the first five years of life. *YBCR* is supposed to leverage children's abilities in those years. As Titzer wrote to me, his company has received "thousands of testimonials" and many indicate reading age level of children in school. Based on that data, Titzer wrote, "It appears rare for a baby to learn to read and not be at least several years ahead in reading when entering school." In other words, based on the testimonials, starting earlier doesn't slow down the rate of learning, it accelerates it.

Of course, we need to know how many kids using *YBCR* were included in Titzer's data, what the standard deviation is, or what the data from a proper control group might look like—important things to know to assess his claim. For what it's worth, his daughter Aleka entered college two years early, at 16, and his younger daughter has skipped a grade as well. But Titzer, having earned a Ph.D., no doubt passed on some "smart genes." Titzer's data might also be skewed by all sorts of things, which ought to come out in peer review. He presented some interesting longitudinal case study data at the International Conference on Infant Studies back in 1998, but this was never published.

Again, the trouble on both sides of this question is that the matter simply has not yet been carefully examined in published, peer-reviewed studies.

But, a well-informed person might point out, what about the studies by Dolores Durkin?

In 1966, Durkin published the results of much empirical work in *Children Who Read Early: Two Longitudinal Studies*. Durkin followed two groups of children who had learned to read at home before Kindergarten; there were 49 students from Oakland in the first group and 156 students from New York City in the second. The Oakland study followed students for six years, beginning in Kindergarten. The boys went from a median reading grade-level of 2.1 to 7.9, six years later, and the girls went from 1.9 to 9.6. Significantly for my purposes in this essay, 13 of these children started at age 3, 22 at age 4, and 14 at age 5; the children who started at age 3 ended up with the *highest* average reading grade level six years later (9.2), which was over 1.5 grade levels above the students who started at age 4 or 5, and much higher than students who began at more normal ages. Though the data are very slender of course, they do seem to indicate that the younger one begins to read, the higher one's reading level will be in the sixth grade. (These results are reported in pp. 12-28.)

Somewhat similar results were found for the New Yorkers, although the study covered only three years. The boys and girls achieved virtually identical results, with median reading grade-level of 2.0 in Kindergarten and 6.1 in the third grade.

The fact that many of these children skipped a grade supports the contention that the children were, in fact, academically benefitted by their early reading abilities: 15 of the 49 Oakland students had skipped a grade after five years (p. 34), and 25 of the 156 New York students had skipped a grade after three years (p. 81).

Another small longitudinal study of early readers was done in Great Britain, covering ages 5-7. (See Rhona Stainthorp and Diana Hughes, *Learning from Children Who Read at an Early Age*—this book may be of special interest in that it actually gives a page-long case history for each of the 15 early readers.) This study involved 29 readers, 15 of them early readers. On tests of reading accuracy the early readers went from reading at age levels of 8.5 at age 5 to 11.08 at age 7 (three to four years ahead), and from 7.0 to 9.5 in comprehension (two years ahead). In these and all other measures, the early readers were already gaining *more* than one age level per year—the linguistically rich, so to speak, getting richer, at least for a few years.

In a 2004 follow-up study, Stainthorp and Hughes gave a status update about 28 of the children. At age 11, the early readers continued to enjoy an advantage: "precocious reading ability does not wash out and…the precocious readers maintained an advantage by the end of the primary school years." (p. 363) In other words, "The data presented here show that the precocious readers did indeed maintain their advantage. This was the case for word reading on all the standardised measures given, as well as reading rate and reading comprehension." (p. 366) The "Matthew effect," or the rich-get-richer effect, did not continue for this group, however. The group's advantage narrowed when it came to *reading accuracy,* i.e., ability to sound out words; in the other

measures, reading speed and reading comprehension, the advantage remained largely the same six years on.

These are not the only studies of precocious readers. Other studies have produced similar results, as one can discover in an excellent review article, "Precocious Readers: Past, Present, and Future," which appeared in 2006 in the *Journal for the Education of the Gifted*. Another recent study (Tafa and Manolitsis 2008) also gives a nice overview of the field and goes on to support the notion that it is the irregularity of the English language that accounts for the superior phonological awareness of early readers. Learning to read in the much more phonetic Greek language, early-reading Greek children enjoyed several advantages like their English counterparts, but their phonological awareness scores were the same as non-precocious readers by the end of first grade.

This body of research does appear to provide some support for the claim that children who enter school already able to read will retain some advantages later on. But one must not get too excited about this; three critical observations are relevant.

First, I wish I could conclude that similar results will be borne out for children who began reading at age 0-2. But in fact, Durkin's studies concerned only children who began to read at ages 3-5, and there might be significant differences between early readers and *very* early readers. I wouldn't be surprised if some researchers claimed that the brains of the "natural" early readers are unusually well-developed, so that they can begin to start using the higher brain functions needed to grasp language. The situation might be much different for a baby whose higher brain functions are undeveloped, and who relies on lower brain functions to memorize a lot of words.

Secondly, most of the children in Durkin's studies were self-starters and not taught by anything like Doman's or Titzer's methods. They obviously had to receive *some* sort of "training"—for example, a sibling or family friend explaining some reading

mnemonics, the parent answering frequent questions about what word says what, or just running a finger under the text as it is being read, Atticus Finch-style. But generally, the children learned to read because they felt personally motivated to learn. As Stainthorp and Hughes (2004) put it, "these children were not hot-housed at home but had genuinely capitalised on their positive home environments to teach themselves." (p. 370) By contrast, children who began to read as babies or toddlers would not necessarily have become reading self-starters without their special training. This could be an important difference (although, personally, I doubt it).

Thirdly, many of the children in the Durkin studies who read early were of high intelligence; the median intelligence of the Oakland group was 121 while the New York group was 133. That admitted, in both groups, Durkin also compared groups (or subgroups) of early readers to non-early readers with a similar median IQ. In both studies, Durkin concluded that, even controlling for IQ, being an early reader was significantly correlated with higher reading scores after six, or three, years (see pp. 39-41 and pp. 82-6).

Although studies of ordinary precocious readers are interesting and somewhat relevant, there really isn't enough proof demonstrating that children who receive direct training in reading as babies or toddlers experience long-term benefit from doing so. And there are certainly no long-term longitudinal studies, following *very* early readers all the way through their educational careers.

Lack of empirical proof is something Kathy Hirsh-Pasek pointed to when she was interviewed for a long feature article in the *Boston Globe* from a few years back: "There is no data showing their [Doman-trained] kids are doing any better than other kids with highly motivated parents," she said. "And they're not producing Olympic athletes or Nobel laureates, or you can be sure we'd be hearing about it."

It is easy to concede that *precise* point; my own literature search bears out what Hirsh-Pasek says. But perhaps of some interest is a book published by the Institutes for the Advancement of Human Potential (Doman's organization) that purports to give the success stories for those who went through the Doman program (Neil Harvey, *Kids Who Start Ahead, Stay Ahead)* and who were, presumably, all very early readers. I read most of the book. There certainly seem to be a lot of Doman-trained kids that are doing well, and a lot of proud parents. I gather also that many Doman-trained kids have grown up to become successful professionals. But this is not surprising in the least, considering how much their parents evidently prized knowledge. The biggest problem with the book was exactly what Hirsh-Pasek indicates. None of the stories and "data" given in the book constitutes anything like proof that Doman-trained children will do any better later in life than the relevant comparison group, i.e., children of parents who are equally well educated and motivated, but who do *not* use Doman's methods. There was no control study. Even worse, the data took the form of parental opinions in reply to rather vague questions in mailed-back questionnaires (and so both simple bias and self-selection bias can be expected).

So much for concessions. Now onto an obvious yet crucial point, that, puzzlingly, critics virtually never own up to.

The lack of proof establishes that early reading methods are ineffective only if there has been an *attempt* at serious scientific proof, and the attempt was not borne out. Hirsh-Pasek, Wolf, and many similar critics have claimed that there is no proof that children who learn to read early experience long-term academic gains, which is true enough, but this is frequently stated as if it implied that studies have *shown* that there are no gains.

But that is not the case.

To the best of my knowledge—not only have I looked myself, I have asked several experts familiar with the literature for pointers on this—there has not been a single serious scientific longitudinal study of the effectiveness of teaching children to read *very* early (meaning, at ages 0-3). In other words, the question hasn't been studied properly yet, period.

In the absence of relevant empirical evidence, we are left to speculation. Now, skeptics and hard-nosed scientists are perfectly justified in suspending judgment and taking a conservative stance on the issues, I think, and sticking with common practices. This is the proper scientific stance, and I wouldn't dream of faulting anyone for it.

But let us consider the following more definitive, critical claim: getting a child to read at an unusually early age *will not* generally help the child educationally in the long run. Those who start reading later will catch up, on average. This *wholly unproven* claim strikes me as very implausible. Think about it in two steps (cf. the discussion in Stainthorp and Hughes (2004), pp. 359-60):

(1) There are methods that can in an easy and fun way teach many children to read at a first-grade level by a very early age—by, let's say, age two.

(2) If there is no long-term educational benefit to starting early, then other children who have the same "reading aptitude" (my name for the likely ability to read given the combination of environmental factors like parental book-reading at home, with innate intelligence) will catch up in reading ability in the long run. So, Mary starts reading at first-grade level at age two, and John starts reading at first-grade level at age six. Then, by some later age—say, ten—Mary and Johnny are both reading at the same grade level, say, the fourth grade level.

Statistical distributions being what they are, I don't doubt this has happened. But the question is, how likely is it, or, what are the

averages? For the claim to hold true *on average,* the Marys of the world would have to progress through three reading grade levels in eight years, or an average of 0.4 grade levels per year. Meanwhile, the Johnnys would progress through one grade level per year. So, to maintain a belief in the inefficacy of early reading, one would have to believe that starting to read earlier is actually correlated with a *slower* overall rate of learning, and over a period of *very* many years. But why think that?

There is a reply: of course a younger child will have a slower rate of learning. Why expect a two-year-old to be able to learn as fast as a six-year-old? After all, the six-year-old is much more likely to be developmentally ready to read, and the two-year-old is not. That sounds plausible. So let's suppose that Mary goes from a first grade level at age three to a second grade level at age six, when John is at the first grade level. Then she is one grade level ahead of Johnny. One would still have to believe that, just because she started earlier, she would be likely to (or, such kids on average would) learn at a significantly slower rate than Johnny after that. But surely on average, the Marys of the world, taught to read while babies or toddlers, got more of that essential language stimulation than the Johnnys, on average. Yet they develop their abilities more slowly later on? Why think that?

There are several other reasons to expect that the ability to decode language early might accelerate language learning later on, rather than slowing it. These reasons have never to my knowledge been seriously considered by the critics of early reading, no doubt because the reasons militate so strongly against their own prejudices—and perhaps also because they might seem to be trivial matters of common sense.

First, an ability to decode language makes it much easier for a child to understand reading by parents (and other caretakers). Especially if the parent helps the child by pointing to the text being read, the child who can read will be able to match up the sometimes puzzling sounds coming out of the parent's mouth

with the clearer, more "objective" letters on the page. By entering the brain through both visual-lexical and auditory modes, the child simply has a better grasp of what is in the text. That means better understanding of the text and hence better learning. Of course, this is just a hypothesis, but it seems very likely to be true; what a fascinating research project it would be.

Second, as discussed above, children who can read for themselves often do read when their parents are not on hand. They are able to absorb more from books that are lying about simply because they do not depend on parents as much for reading. They do so at will, not when the parent wants to, but when *they* want to, and reading not things that parents want to read, but which *they* want to read.

Third, the ability to read opens up as lot more than books. It opens up the whole world of words that surrounds us, from store signs and advertisements, to instructions on new toys, to notes from grandparents, and so on. Since learning to read, my boy has constantly prattled on about signs, cereal boxes, advertisements, newspapers, bills—all the print we are surrounded by. The ability to understand so much more of their world surely tends to embolden children and make it easier for them to learn all about the society they live in. If nothing else, decoding the written word provides many more "teachable moments" and conceptual hooks for children to hang answers on.

Recall the objection, from earlier sections, that children don't *understand* much of what they read, when they are reading so young. The discussion above suggests another way to respond: the objection belies an adequate grasp, or acknowledgment anyway, of the complexity of the situation. *Of course* children do not understand much of what they read. But then, they don't understand much spoken language, or much of their experience, period—that is the nature of childhood. My whole point is that children who can read at such an early age have many more clues to explore and piece together their world than they would have if

they could not decode language. It reflects a lack of imagination on the part of dismissive experts to fail to recognize just how profound an advantage the ability to decode language can be for a very small child. For those of us with early readers, this advantage does not seem speculative because it is something we see every day in our children.

Finally, let us not forget that all of this early, enhanced exposure to print takes place at just the time that the brain is growing most quickly—at just the time when, for example, it is so easy to memorize nursery rhymes and songs. Knowledge gained at this age will tend to be as basic and ingrained as the ability to understand one's native spoken language. This is why it is reasonable to expect early readers to be able to read faster and with better comprehension later on, and why it is not surprising that so many parents report just this result. That this is generally the case is admittedly just a hypothesis, but again a plausible and testable one.

13. No need to be defensive

> Oh my goodness—this means I've been a bad parent. If it's possible and beneficial, shouldn't I have been teaching my children how to read?

I suspect that some people resist taking early reading programs seriously because, if they did and their children were past toddlerhood, they might be inclined to conclude that they made a serious mistake as parents. After all (so you might think to yourself), if it is possible to give your children a four-year head start on reading, haven't you failed if you did not give them this opportunity? That's not what *I* think, but perhaps others have this worry.

This worry must be especially bothersome for early childhood educators and reading and child development experts: *if* there were anything to programs like this, they in particular surely feel

that they should have been on board. That is why, for professionals in the field, the cost of keeping an open mind about these programs, both emotional and intellectual, must be very high. It is no doubt much easier to dismiss such programs out of hand, ignore arguments and evidence, and endorse the usual views about reading readiness and the importance of play.

Along the same lines, at least one person I spoke to about very early reading basically accused me, or perhaps the *Your Baby Can Read* videos, of *pressuring* mothers. She thought that I was saying that she was a bad parent if she did not use these tools. I must confess I found this unexpected and extremely puzzling at first. I certainly *said* no such thing, and putting anybody on the defensive was very far from my aim.

But on reflection, it makes sense, of course. Some of the sales hype does unfortunately use pressure tactics, which I find tasteless. Besides, I *was* saying that it is possible to teach very young children to read, that this isn't *very* hard, and that children probably greatly benefit from this. So, what parent, who had not used such methods, would not feel a little defensive?

I'd like to tell these parents that such defensiveness is not necessary. I started reading when I was five, not one, and I turned out all right. Don't you feel the same? Many of us are not unhappy with our education, and yet we were (most of us) not taught to read at such an early age. I'm sure many of the smartest people in the world started reading at age five or after. In *Miseducation,* David Elkind supplies a list of famous smart people who did not receive intensive early education. So of course you aren't dooming your children to intellectual mediocrity by failing to teach them to read early.

Besides, nobody is going to blame you, and you shouldn't blame yourself, if you do decide that this is an opportunity you should have considered earlier. The issues involved with very early

learning are complex, and still very much controversial, and so it is perfectly reasonable to take a cautious position on them.

CONCLUSION

1. Some take-aways

The last few years have been an eye-opening journey for me, discovering that it is possible to teach a toddler and preschooler—lovingly and without forcing—far more than I ever knew he would be capable of learning.

By way of summing up both parts of this essay, I will list what are for me the most important "take away" points.

- Reading a lot of both fiction and nonfiction is the only way to *learn* a lot. To build the brain, read. This is true even from the first year of life, and it is still true in the Internet Age, despite fashionable speculation to the contrary. To read to a child is to give him not only concepts, but also acquaintance with language more generally and of how to organize and describe his experience of the way the world works. There is no reason to postpone lots of reading until school age. A child's intellectual level is indicated by what he is interested in and apparently capable of taking on board. There is no reason to save more "advanced" books for a later age *if* a child shows interest in the more advanced material. (Just don't present *too much* material that is outside of his comfort zone, and always include plenty of easy stuff, at and below his comprehension level, as well.)

- A lot of people still don't believe that it is possible to teach tiny tots to read, even after watching some YouTube videos, the *YBCR* infomercials, talking to a few people, and maybe even reading this essay. It seems to be one of those things about which people say, with perfect sense, "If it sounds too good to be true, it probably is." I expect that some people with that attitude will dismiss my son's story by saying, "Well, this is just the result of smart genes and a very involved father." But this conclusion does not quite fit the evidence. My wife and I do not claim to be "geniuses" (we have scored well on standardized tests, but not at super-genius levels). In terms of the learning potential of our grey matter, we think of ourselves as ordinary well-educated people. I have little doubt that my friends and family would be able to achieve similar results with their children. There are many people who say they are fairly average both in intelligence and education and who report really excellent results with *YBCR* and the Doman methods. That puts the lie to the claim that there is something very unusual about my son in terms of his natural potential. This means that the real debate is about whether we *should* teach our kids to read so early—not whether we *can*.

- Think what you like about Glenn Doman and his methods, but he was to my mind certainly right about one thing: very young children have a tremendous ability to absorb information, far more information than we usually provide to them in very early childhood. Moreover, they have a thirst for knowledge, and slaking that thirst when they are enthusiastic about a book or educational activity is the very opposite of pressuring them. Anyone who has taken Doman's methods to heart will not pressure a child or make him uncomfortable with educational activities.

- But you must be quite sensitive to a young child in determining whether he really wants to do something.

Elkind was right, of course, that children often want to please their parents, and they may say "yes," or not say "no," even when they aren't interested in doing something. It's important not just to ask whether your child wants to do something, but to discover and help him get deeper into what he's really enthusiastic about. Along the way, if you take a creative approach and try out many different educational activities, being sensitive to when your child is no longer interested, he will absolutely adore educational activities. When it feels like playing, you will be able to teach him *loads*.

- If there is any danger here, it is the failure to realize that, to satisfy a child's curiosity properly, one must always be ready to give up one's carefully-devised plans and try something new. A child's creative, inquisitive mind will not conform to an inappropriately narrow plan. So—keep up, Mom and Dad! Parents who take up these methods can sometimes, I think, fail to realize how much creativity and trial-and-error it can take to execute them properly. If your child is not enthusiastic about something you're doing, you should stop, but then definitely *do* try something else. Don't be discouraged. Maybe you should try teaching what you're teaching in a completely different way. Or you can also try it the same way a month or a year later, and it might work then. You should not simply give up on helping your child to learn because your child does not go along with your plans, nor should you of course try to force your wishes upon a resisting child (at least, not in the earlier years), or even a merely unenthusiastic child. There are so many things that a child wants to and is ready to learn enthusiastically that it would be a huge waste not to tap into that natural reservoir of motivation.

- There is not just one way to teach very young children to read. It is simply wrong to associate early reading either with phonics worksheets or with whole word reading.

The phenomenon is now bigger than Glenn Doman and his methods, and also bigger than *YBCR* and its products. It is time that reading researchers and society in general woke up to the fact that parents have taught many thousands of babies and toddlers to read for over a generation now, and using a variety of different methods.

- It *is* possible to teach tiny children to read with phonics—but there is a very important caveat. Most of us associate "phonics" with workbooks and computer programs, which are designed for older children. It is *not* possible to teach babies, toddlers, and most preschoolers with such methods. But my phonics flash card program, for example, worked well for us, and some parents have downloaded the cards and reported good results too.

- I recommend incorporating complete, explicit phonics, in *some* appropriate form, even for babies and toddlers. It is well-known and has been proven repeatedly by hard-nosed reading researchers that many children who start learning English at the normal age (5-6) sometimes have a very hard time learning to read with methods that eschew systematic phonics. Not all children can infer the rules of phonics inductively from whole-word examples. If this is true of five-year-olds, it might be true of babies as well. Doman, Titzer, Kailing, and others appear skeptical of this point, but no studies yet prove that babies *uniformly* are able to learn the rules of phonics inductively. Considering the substantial number of parents who complain that their baby readers have not (by age two) gone beyond the words they've memorized, there seems to be some anecdotal evidence that some babies *cannot* learn phonetic rules inductively. Titzer told me he has seen many examples of sub-twos who could sound out new words, and I don't dispute that. My concern is about the children who *don't* learn how to sound out new words.

- For all I know, it *might* cause some problems if parents teach a child to read but not also do other early literacy activities. (I don't know this, of course.) It is surely a missed opportunity, at least, to give a child the tools to decode text while withholding the conceptual tools to get meaning from the text. This might very well cause the child to associate reading with boredom. There are many ways to build a child's conceptual storehouse and vocabulary, but the most important is to read to the child—a lot, about everything.

- One of the most common skeptical reactions that one comes across to the very early teaching of reading is to dismiss it as the pathetic desire of ambitious, competitive parents for their children to "win" and be the best. I think this prejudice is rooted in a lack of acquaintance with very many people who actually use these programs. I've been interacting with parents (mostly mothers) who are trying to teach their children to read, and they seem to be ordinary, caring people. The only thing that seems different about them is the strength of their conviction that they really can positively benefit their children by teaching them to read, and in other ways, from an early age; and yes, they do seem smarter than average. I do not see evidence of competitiveness, but actually exactly the opposite. The parents engaged in teaching their kids in this way seem mutually supportive, and if anything, unusually kind. They also do not seem to me to be unbalanced, but actually quite sane people. Many of them are afraid, as I was at first, of "coming out of the closet" as supporters of baby reading. It takes courage, time, and emotional energy to go against common practice and academic opinion, to "buck the establishment."

- So, with all due respect, it is time for some researchers to stop their insulting and unfair characterizations of the motives and practices of the parents who take up these

programs. Or, if they want to continue to heap scorn upon these well-meaning parents, they should behave like the scientists they are, and actually study the real-life phenomena they are dismissing with such insults. At this point, there is no need for further speculation and guesswork; many people are crying out for studies. If you think that these methods are damaging, or not beneficial, then prove it.

- Another prejudice I would like to see disappear is the notion that the parents who undertake early education think that playing is a waste of time, or that they discourage much free, imaginative play. The fact is that even the program I have undertaken with my boy has left him many, many hours of completely unstructured time for free play. He is an absolute fiend for Legos, and we play plenty of games and sports too, of course. We do most of our educational activities at mealtimes. Outside of mealtimes, we probably play together more than we "learn." I've seen similar remarks from other parents as well, that their very small children spend most of their time playing, and that the learning activities they undertake use up relatively little time in the day. In any event, parents who do much very early education are made to seem like humorless drudges who don't want their children to have any *fun*—but I seriously doubt that that is fair or accurate for the vast majority.

- To my mind, there is a significant chance that we, as a society, should support very early reading much more than we do; and it is crucial that we better understand that the activities that make this both feasible and beneficial are different from Kindergarten and "academic preschool" work. For a while, I feared the reaction of people to the notion that we are teaching our son to read. With my experience and the research I've done, I am now pretty well convinced that a lot of the resistance is unwarranted and

uninformed. I will try to keep an open mind on the issue, but my view right now is that it is entirely possible to teach most ordinary children how to read at a *much* earlier age than is common now. I also find it very plausible that on average there are significant long-term benefits to doing so, though I agree this has not been *proven* as of this writing. But just think: if these views are shown to be correct, their broad adoption in society would be hugely beneficial. What if it were normal for all children in or before preschool to be exposed to something like *YBCR* (perhaps something free, online, or on public television)? And what if, as a result, very many of them did in fact learn to read effortlessly and naturally, as Doman has claimed for his methods? Finally, what if these children were, individually, greatly benefitted by these early reading experiences in the long run? The prospect of putting videos like *YBCR* especially in low-income daycares and preschools is exciting to me. If someone can prove to me that that would be a *bad* thing, I would be very surprised (and saddened).

- Considering the possible benefits, researchers should investigate the specific issues raised in this essay empirically and with urgency.

2. When should we start teaching our children to read, and how?

This question is really a topic for another essay. Moreover, I can speak only from my own experience and amateur study of the topic. So I feel comfortable offering just a few pieces of advice, most of which I have learned from others.

- It is a great idea to start reading to your baby as early as the baby will pay attention. (During his "active" time, I could hold my one-month-old baby's attention for five minutes with a simple board book.) By six months, some babies can

sit still in their parents' laps for a long time; when my first was a baby, I frequently sat him in my lap and read a dozen board books to him for an hour. It doesn't hurt to read to a baby; most babies, I gather, like it a lot, especially if it's "cuddle time" and you use funny voices and point at pictures and make it interactive.

- Read a lot of ABC books, even to a baby. This is the fun and easy way to get acquainted with the alphabet. After your child has started learning the alphabet, check out the wonderful Starfall.com and Literactive.com websites to build on that basis. Lots of apps teach the same things.

- As to when to start using presentations, I did that with my second child at about the same time I started reading to him—right away. A good presentation is like a book, so if you are reading books to your child, you can do presentations too. Of course, if your baby cannot focus on a computer or TV screen from your lap, or on cards, you might have to wait. Or—as I've done—hold an iPad within his range of focus.

- As your baby grows to toddlerhood, you can get down on the floor with your child and play with letter magnets, blocks, and alphabet toys. Emphasize the sounds of the letters, and practice sounding out the simplest words like "go" and "me" and "cat."

- If you have any desire to follow a phonics flashcards program just as we did, you'd wait to use the cards until your child has mastered both the names and the sounds of the letters, especially the consonants. (A good phonics program teaches various vowel sounds, so knowing the intricacies of vowel sounds is not a prerequisite.) Your child should also be capable of learning to say the words out loud.

- I've been asked whether I think the flashcards can be used before a child can speak, with children who have gone through *YBCR,* Doman presentations, Little Reader, etc. My answer is that I don't know; maybe. When some children, who began learning to read as babies, begin to speak, they might already know the easiest sets of the flashcards. In that case, I would advise them to skip ahead to those sets that seem to pose a little challenge. I was using flashcards with my own son for many months after he was able to work out new words (and even new phonics rules), and I'm sure that that practice helped.

- Keep reading to your child well, long after your child has started learning to read independently. Move your finger under the words as you read; this is excellent practice, especially after your child starts to learn to read.

There is much more to say on this question, obviously—there are books about it in this essay's bibliography.

3. The importance of supporting early readers in school

Let's suppose that it *is* possible to teach a child to read at an early age in a positive, pressure-free way, and the child *will* academically benefit from the experience. Even then, there is a problem I haven't considered yet. What if an early-reading child does not fit in at school, if he is so much more advanced at reading? Wouldn't a parent be setting her child up for boredom and social awkwardness later on?

Scout in *To Kill a Mockingbird* even encountered resistance from her teacher:

> …as I read the alphabet a faint line appeared between her eyebrows, and after making me read most of *My First Reader* and the stock-market quotations from *The Mobile Register*

> aloud, she discovered that I was literate and looked at me with more than faint distaste. Miss Caroline told me to tell my father not to teach me any more, it would interfere with my reading.
>
> "Teach me?" I said in surprise. "He hasn't taught me anything, Miss Caroline. Atticus ain't got time to teach me anything," I added, when Miss Caroline smiled and shook her head. "Why, he's so tired at night he just sits in the living room and reads."
>
> "If he didn't teach you, who did?" Miss Caroline asked good-naturedly. "Somebody did. You weren't born reading *The Mobile Register*. … Your father does not know how to teach. You can have a seat now."
>
> I mumbled that I was sorry and retired meditating upon my crime.

There *does* seem to be a problem here: if a child learns to read at a very early age, then he will surely be bored if he is forced into a situation in which he basically has to review what he already knows. Being the over-prepared brainy kid not only inconveniences teachers (like Scout's), it could also lead to social awkwardness. This problem resonates with those people who are horrified at the prospect that their children would be *different* or *abnormal* (even if abnormally smart). Since I've always been different and abnormal, I don't find the prospect very horrifying, but that's just me. I totally understand if others feel otherwise. But the boredom problem, I take that seriously.

I have encountered two different approaches to this problem, both of which admit that the problem is real and needs to be addressed. The first approach is to say that children who start reading very early should either go to special schools or, barring that, find teachers at ordinary schools who are willing to challenge and support the students properly. The students may also be able

to skip grades (as many early readers in Durkin's studies did, and as Titzer's daughters did).

The importance of supporting early readers was interestingly underscored in a paper given by Durkin (1971) titled "Early Reading Instruction—Is It Advantageous?" She said:

> What I have discovered in doing longitudinal research...is that it comes close to impossible to learn about the future value of earlier starts because schools, as now constituted, seem unable to take advantage of them. The point I'm making is simply this: if children who read when they enter first grade—either because of home or school help—are treated as if they cannot read, then, quite obviously, it is impossible for a researcher to assess the future value of their earlier start.
>
> ...[W]e will never be able to come up with meaningful assessments of pre-first grade starts in reading unless schools use and take advantage of such starts.

Also, Stainthorp and Hughes (2004) have a relevant observation about the children they studied:

> …given that the YER (early reading) children must have made very rapid progress in teaching themselves to read fluently before they entered school, there does seem to be a sense that they were marking time in terms of reading during the later primary years. They may have benefited from specific programmes to boost their higher-order reading skills, but this did not happen.
>
> Precocious reading skill certainly does not seem to be an unsecured surface skill that washes out. … This document makes the point that high ability does not always result in high attainment. The data from this follow-up study suggest that original high reading ability at the age of five

> did appear to result in high attainment at the age of eleven. However, the longitudinal trends lead us to question whether the YER children might have made accelerated progress if given specific support in school to enable them to capitalise on their early achievements. (p. 370)

You might be creating a voracious reading and knowledge monster: be prepared to feed it.

This leads me to the second approach, because indeed some people might not be able to find the right school, teachers, or program to support their children when they get to school age. Like most people, I had quite a few excellent public school teachers, and I would not be the person I am today without their wonderful teaching and guidance. Nevertheless, we have been planning to home school our boys since before they were born. Indeed, home schooling is what we have been doing with our first. So we will simply continue doing the same (with perhaps a little more structure as they gets older).

Since many people are not financially in a position to do this, or have philosophical objections to home schooling, I wouldn't dream of recommending this for everyone. I am simply saying that if you do plan to try to teach your children to read at an early age, you might want to think about home schooling them—in case you are successful. Then you can let them develop educationally at their own pace, benefitting by following their own interests and strengths instead of what a classroom of their non-reading age peers are forced to do all at the same time. Otherwise, as I said, you should try your best to find schools or individual teachers who can nurture your child's thirst for knowledge.

Another solution is to get supplemental tutoring or other academic enrichment activities, to keep your child learning at the same accelerated rate that she did before school. This, apparently, is what some Doman-trained children do, according to Neil Harvey in *Kids Who Start Ahead, Stay Ahead.*

I do have to admit that if none of these answers is satisfactory for you, you might very well not want to help your children to learn to read at an early age. If you do, they might become abnormal—abnormally good readers, and unusually curious and engaged students, that is. But abnormal nevertheless, and the world is always not set up well for abnormal people. In some ways, it might well be easier for everyone to wait until school to teach your children to read.

So I wouldn't want to say that, at present, we should all be teaching our children to read as babies and toddlers. Of course, if more people *were* to teach reading to babies and toddlers, then there would be such a crop of advanced learners by school age that they would have to be accommodated. But then, it would become normal, and socially acceptable, and then the problem would go away. That, I think, would be the best solution. But, as I write this in 2010, it seems unlikely.

4. What is the point?

I want to conclude by answering a question that must be on the mind of anyone thinking seriously about teaching their children to read early: what, *really,* is the point?

Here is an unappreciated, though perfectly obvious, observation: once your child has learned how to read, she does not need to *re*-learn. Simply learning to decode the language phonetically is, for some children, very stressful and difficult. What if it turns out that *those* children, the ones who find learning to read really difficult at age six, could have learned how to read quite easily when their brains were more plastic and more receptive to it?

What I am suggesting may sound ridiculous: perhaps, totally contrary to popular belief and practice, as well as expert opinion, the first years are actually the "developmentally appropriate" time for learning to read. If many studies confirm that most babies can

be taught to read without much difficulty (and clearly benefit thereby), then it is possible that some of us will teach our babies to read just because we do not want them to struggle with reading when they are five, six, or seven.

Of course, what motivates me and many other early-reading parents is the unusual benefit we might potentially give our children. Sometimes we speak of "creating geniuses." But isn't it very implausible that we can "create" geniuses? Personally, I just want a healthy, happy, and well-educated kid. It seems silly to pretend that we can make "Little Einsteins" out of our kids.

I do not think that, by learning to read at a very early age, or by absorbing the information on hundreds of flashcards and presentations, one will create a "genius." I have no wish to cause offense, but those who claim that their children are "geniuses" just because they have been trained to read at an early age are being a little ridiculous. The mere ability to decode written language at age one or two hardly means a child is a genius, any more than the ability to use and understand sign language at that age does. Glenn Doman's enthusiasm for the abilities of children is charming and infectious, but I have found his claims to be able to make geniuses a little much to swallow.

But this concession only raises the question: if we aren't creating geniuses, *why* really should we consider going to the time, trouble, and expense of following very early education methods?

I will wait for the results of empirical studies before insisting on definitive claims, but my guesses are as follows. I think that children who learn to read as babies or toddlers *will*—on average, and especially if their skills and interests continue to be supported once they are school age—do significantly better in their overall educational development than they would if they do not have this early training. By learning to read at an early age, a child is not merely getting a "head start," he is absorbing the skills, habits, and concepts crucial to reading at the same time and in the same way

that he absorbs nursery rhymes. Reading becomes "second nature." I don't think that having such reading skills will make it significantly likely that he will have the mental acuity and creativity of an Einstein—but it will probably help his long-term educational goals. Again, I know this is just speculation, but it seems very reasonable to me, and in the absence of better evidence, I feel justified in acting on what seems very reasonable.

I should add that Elkind brings this issue up in *Miseducation* (pp. 16-23) saying that it is a "popular argument" that early instruction at home has created the world's geniuses, and that this is supposed to be why we should try early education at home. He easily refutes this weak argument by pointing out that there were many great people from history, and a roster of MacArthur Fellows, who did not receive anything like intensive early education. To be sure, there are some who have made this sort of argument, and insofar as the argument is that genius *requires* early training, it is obviously a poor argument. But a better argument aims to show something more modest, namely, that certain kinds of early training can *foster* increased intelligence, and Elkind's response does not respond to this argument at all. To put it simply: if you use *YBCR* (for example) and thereby learn to read at age one, will your educational outcome or IQ be better twenty years down the road? I think there is some chance of this.

Reading about Doman's wunderkinder, I had the same reaction that many people have to child prodigies: that's amazing, that's startling, that's all very nice, but the real question is whether knowing all those facts or having those skills at an early age will greatly improve the future abilities of the children to learn or perform. Now, don't get me wrong. As long as they stay at least as enthusiastic about learning as they otherwise would, having skills and knowing facts early must benefit them. There are worse things a 4-year-old could be doing with his time than enthusiastically practicing the piano. As one correspondent pointed out to me, "the present is all we've really got, and if a child delights in learning and having new ideas suggested to him,

what more reason does one need?" But for me the more important question is whether having these skills and facts early on will greatly improve the future abilities—and lives—of those children.

Indeed, that's the whole reason some of us get excited about all these educational methods. Seeing a child do something or recite some fact precociously may be exciting, but mainly because this seems to indicate that the child is farther down the path to knowledge, or more intelligent, or better prepared to learn. After all, if a person were stuck with the knowledge and skills of the most talented five-year-old on Earth for the rest of his life, he would be an ignoramus as an adult—an idiot savant at best. Insofar as what we're caring about is knowledge, what matters is long-term knowledge, or how much knowledge the child will have when he or she is much older. So I argue that preparing for what happens *after* the first five years is our primary task.

Some critics of Doman, *YBCR,* and similar programs might be surprised to hear me say all this; I am stealing their thunder, I am sure. Well, *of course* I realize all that, and *most* thoughtful readers probably do too. I also admit that, from where I sit, I merely have a reasonable belief—I do not *know*—that my boy's store of knowledge and critical-thinking abilities will be benefitted in the long term by the educational activities we undertake now. I really wish I had some empirical proof, one way or another, that these activities really would be beneficial or not. In the absence of such proof, the main thing that seems dispositive to me are the many examples of children who are doing very well in school after receiving Doman and similar training. Of course, there is also the common sense argument that there is no good reason to think that advantages will be lost, if one is not pressuring a child in a way that makes him burn out or lose interest in learning later.

But again, I am honest enough to admit that I don't *know* if we will, in the long run, have the same good long-term results that some others report. I know we are hearing only these programs'

success stories—not so much the stories about failures or problems. (Though I did discuss some of those above.) This is why careful scientific studies are so important.

I, and many I speak to online, often say that the reason we train our children using these methods is that we want the best for our children; we want to give them every benefit we can. I think this is a very reasonable and sincere sentiment. But think now about what this common statement means. We are saying that it is worth our time, and our children's, to give them what we hope will be a long-term advantage in terms of knowledge. And yet how much do many of we parents care about *our own* knowledge? How many parents are engaged in continuing education, or read many books that greatly expand our intellectual horizons? No offense, but I doubt it's very many; we're busy with our families, working, and living our lives. For better or worse, for most people—even many highly educated people—continuing education must take a back seat to other things like work, family, and non-intellectual hobbies.

For most of us, then, I think we're just interested in cramming in as much intellectual improvement into *childhood* as possible. And then what? What constitutes end-point success, for a parent who uses these programs? The child growing up to be smart? Getting a professional job, or getting a better position? Lots of well-educated kids who did *not* follow any of these programs can achieve material success—again, I learned to read at age 5, like most kids, and I guess I've done OK. You might say, "It's just the comparative advantage, the benefit." Fair enough, but that doesn't answer the question: to what end does the benefit point?

There's nothing magic about knowing many facts, no ticker-tape parades for being able to do well on a standardized test, no deep satisfaction one gets from being "on top." We rarely, if ever, encounter any "geniuses" of the sort that we are sometimes invited to envision—a young person whose intelligence is so brilliant that it is magical and outshines that of us mere mortals.

Having been around a few "geniuses" in academia, I firmly believe that creating a "genius" is not the answer.

My take—and I don't claim to speak for anyone else—is based on my notion of what it means to be well-educated. This notion involves having substantial knowledge about many different subjects, being able to write well, being able to read difficult texts, being comfortable with numbers (or excellent, if one is in a technical field), being able to speak a few languages, and generally having a sophisticated outlook on human life and our place in the universe. In short, I have the traditional aim of a deep, serious liberal arts education. But I think that I personally didn't really get as good an education, along those lines, as I could have, at least not by the time I graduated from high school. I could have learned so much more than I did in my K-12 schooling. I still have things to learn that ideally I should have learned in school. My own educational failures and observing those of so many people around me has made me very much aware that, despite an information revolution and all the resources of the digital age, it is actually very difficult to obtain a very good liberal arts education. You can get such an education only deliberately and through hard work and good preparation, and in the face of many distractions.

I think that giving a child the conceptual background and the taste for knowledge from an early age (which learning to read early can probably help with), you are making it more likely that the child will be able to obtain a serious, solid liberal arts education. The child will be better able to, and hopefully will actually, read more of the classics; understand, appreciate, and actually read history; get farther along in math (and actually understand it); and so forth. That, then, is my own answer.

But if you did not have the goal of a liberal arts education, I frankly don't know what the rush would be, unless you had the notion, again, that simply "being ahead" was desirable for its own sake. So you've "won the race" if you graduate from high school at age 12. Well, I guess you can start earning big money sooner,

which might mean that you will have a longer career and end up in life a little richer. As a goal that makes some sense in the big old "game of life," but it isn't what fires *me* up.

My notion is that by starting early, this gives the child the opportunity to fill up those teenage years with more general knowledge, more literature and history, a deeper grounding in science, and so forth—before finally having to go to college, specialize, and get into a profession. And for those not heading toward professions, it would help secure a basic level of knowledge too often lacking in the high school graduates of today.

There is almost nothing better in life than improving the mind with knowledge. Some of my happiest and most rewarding times in high school and college were when I was really learning. Deep knowledge is life-changing and character-changing. So "starting early" really has little more purpose to me than to improve the chances—not to guarantee, because there are no guarantees in life—that my child will do more of that sort of learning, and enjoy it, in the long run. That's why I have taught him to read early.

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Some books I read to my son before his fourth birthday

These following lists include some of the "chapter books" we read as well as some more advanced and "literary" material like the poetry of Edward Lear and R. L. Stevenson. We started many more chapter books than this, which my son nixed. Most of these we read when he was three years old, primarily at bedtime, for 30-45 minutes per session, but not infrequently at other times as well. We read many more books than this—thousands of picture books, nonfiction, etc., so a full book list would require many pages.

Amery, Heather. *Greek Myths for Young Children.*
Atwater, Richard. *Mr. Popper's Penguins.*
Baum, L. Frank. *The Wonderful Wizard of Oz.*
Beowulf. Usborne illustrated classic edition.

Carroll, Lewis, adapted by Lesley Sims. *The Usborne Illustrated Alice.* Usborne "illustrated classic" edition.

Collodi, Carlo. *Adventures of Pinocchio.* (Read twice in a row.)

Dalgliesh, Alice. *The Bears on Hemlock Mountain.*

Dicamillo, Kate. *Mercy Watson to the Rescue.* And the next two Mercy Watson books.

Earth & Space. Question and answer format encyclopedia.

Gannett, Ruth Stile. *My Father's Dragon.* Then *Elmer and the Dragon* and *The Dragons of Blueland.*

Illustrated Classics for Girls. Usborne illustrated classic edition, features greatly simplified, 65-page versions of *The Railway Children, The Wizard of Oz, Black Beauty, The Secret Garden, Little Women,* and *Heidi.* ("For boys" was not available until summer 2010.)

Illustrated Classics from Dickens. Usborne illustrated classic edition; five novels greatly simplified.

Lear, Edward. *Complete Nonsense.* Read all of the limericks and most of the poems.

Le Guin, Ursula. *Catwings.*

Le Guin, Ursula. *Catwings Return.*

Milne, A. A. *Winnie-the-Pooh* and selections from other Milne.

O'Brien, Robert C. *Mrs. Frisby and the Rats of Nihm.*

Osborne, Mary Pope. *The Magic Tree House: #1-30* & *35.*

The Oxford Picture Dictionary. (We had covered 2/3 or so of this by his 4th birthday.)

Prelutsky, Jack, ed. *Read-Aloud Poems for the Very Young.*

Stevenson, R. L. *A Child's Garden of Verses.*

Warner, Gertrude. *Boxcar Children.*

Wilder, Laura I. *Farmer Boy.* Halfway through at fourth birthday.

Wilder, Laura I. *Little House in the Big Woods.*

Wild, Wild World. Question and answer format encyclopedia of animals.

White, E.B. *Charlotte's Web.* (Read twice.)

White, E.B. *Stuart Little.*

White, E.B. *The Trumpet of the Swan.* (Halfway through a second reading at fourth birthday.)

Wyss, Johann. *Swiss Family Robinson.* Simplified adaptation.

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