

Book Review by James J. Asher

Einstein Never Used Flash Cards:

How our children REALLY learn—and why they need to play more and memorize less
by Kathy Hirst-Pasek, Ph.D., and Roberta Michnick Golinkoff, Ph.D.

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The clever title of this book is irresistible, but there is a problem asking a professional psychologist to review a book with experimental results written for a lay audience. I find it impossible to evaluate those experiments because the writers simplify with conclusions such as this": (p 173) "The first few years of schooling appear to be built on a firm foundation of children's emotional and social skills... children who have difficulty paying attention, following directions, getting along with others, and controlling their negative emotions of anger and distress do less well in school." "Does less well in school..." There is the glitch!

What does performing "less well in school" mean? As I explained in my book, **A Simplified Guide to Statistics**, telling us that one group performs better or worse than another is empty. The important piece of information is not that one group performs significantly better than another, but what is the magnitude of the difference? (In research, one way to express magnitude is a procedure called, *effect size*.)

Now, here and there in the book, magnitude is spelled out such as the statement that as infants make the transition into maturity, about 40 percent of their neural synapses disappear. As adults, we have fewer brain interconnections than we did as babies. That is contrary to expectation and therefore is a provocative piece of information. It is something I think most readers did not know before.

Another interesting statement "(almost all) babies speak on the right side of their mouth and smile on the left." The reason is that speech comes from the left side of the brain (which controls the right side of the body) while emotion expressed in smiling comes from the right hemisphere (which controls the left side of the body).

What about language acquisition?

Around the world, in all languages, infants acquire language at about the same time—single words at 1 year of age and sentences at the age of 3.

Some "facts" I didn't know

By monitoring changes in babies heart rate, it was discovered that infants in the womb tune into mother's voice. At only two days old, switching from the infant's native language to a "foreign" language produces a change in the rate of sucking on a pacifier—more intense sucking when they heard their native language. (More intense is rather coarse. For a precise evaluation what is the magnitude of the difference?)

At four and a half months, babies seem to know where a sentence begins and ends. This intriguing bit of information was obtained with a unique Headturn procedure that works like this: The child listens to sentences spoken to one ear at a time when the sentence is halted *appropriately* at the end of a thought or *inappropriately* in the middle of a thought. For example, Cinderella lived in a great big house (appropriate stop). Cinderella lived in a (inappropriate stop). Infants preferred sentences with appropriate stops or breaks suggesting that they are already tuned into the natural rhythm of sentences.

Implications for second language learning

Children seem to be natural pattern-seekers. For example, at 6 months they learn to recognize a word followed by their own name rather than someone else's name. By 8 months "babies are even more sophisticated at detecting (grammatical) patterns... all this 5 or 6 months before they utter their first words. "

All of these experimental results presented by developmental psychologists seem to support Asher's "*silent period*" as the optimal strategy for second language acquisition. In the classroom with students of all ages, TPR simulates infant development using language-body conversations (i.e., the instructor utters a direction and the student is silent but responds with a physical action). The result is high-speed pattern acquisition of the target language on the right side of the brain, and when enough of the language code is internalized, the student is spontaneously ready to talk. Pattern building with TPR results in a readiness to "babble"—that is, utter playful utterances in the target language. Infants start to babble at 7 months; TPR students are ready for playful utterances after only 10 to 20 hours of the TPR experience.

So, you want your baby to acquire several different languages

The writers suggest the ideal arrangement (based upon anecdotal evidence): Mother speaks to the infant only in English while the father speaks only in Spanish and the nanny speaks in German. To make this work, each speaker must be consistent.

Guidance for parents

The book is a blizzard of recommendations that most parents will find impossible to implement. Adult memory span will not accommodate all those details. My summary of the book may be all the guidance most parents need:

Drill and memorization don't work. Leave your kids alone. Let 'em play. Let 'em mess around and get dirty. Stop trying to speed-up their natural development into maturity. Stop trying to get 'em to read and write and perform calculus before they make the transition from diapers to pull-ups. They'll get a job and get out of the house soon enough. They'll be working the rest of their lives. Now is the time for them to just be kids.