

## Speech for Dad:

As you might imagine, being Bob's child could be tricky. He could be very busy and preoccupied. An example of this comes from when I was 4 and I attended the Demonstration Nursery School on the Iowa State College campus. Dad didn't drive me to school often, but on the day I am recalling, he did. I noticed that he passed the turn off to my school. I sat quietly, thinking he had another route. When I realized we were approaching his lab, and that we were well beyond the nursery school, I piped up. He turned, somewhat startled, to find me there. In his face was a moment of pleasure at seeing me, astonishment at my presence, and slight chagrin about having forgotten I was there.

On the other hand, there was one time each the day when we knew we would have Dad's attention. Before bed, he would read to us. I believe he selected the books, and you will soon know why I think this:

He read us all of the Pooh books, but he also read us Kon Tiki. I don't know how he came to choose the Pooh books, but he clearly was reading between the lines, as he later turned Christopher Robin and Pooh into examples for his public lecture which he gave at Beckman Auditorium (at Caltech) called "The Brain of Pooh". The essay was published in American Scientist in early 1971, so I presume he gave the address at least a year before. He had read Pooh to us many years prior. Pooh was a bear of "very little brain". As we all know, Dad was the opposite of this, but perhaps this is why Pooh appealed to him. In his essay, Dad quotes Pooh as follows "Here is Edward Bear (AKA Pooh), coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it. " Dad saw in these lines "a splendid parable to man and his whole scientific

enterprise—that we perforce go bump, bump, bump along the paths of scientific discovery when had we but the acumen, the brain power, we could immediately deduce from the known facts the one right and inherently logical solution.” This from a man who would NEVER be described as a bear (or man) of “very little brain.” Apparently, he could imagine having even more brain power than was available to him at the height of his career!

Dad wanted to find a way to go beyond what he called, “the limits to thought inherent in the structure of our brain and therefore potentially extensible by genetic modification.” I will take this further to say that, to the end of his life, he always imagined what lay ahead in research, wishing that cancer research could race ahead and have prevented Karen’s illness from ending her life, or that medicine would find a way to help a 97 year old man, with a 97 year old heart, from having to see his life come to an end. He seemed to think of his heart and kidney failure as problems that he could, himself, solve, if he could only think

When we took up reading *Kon Tiki* (very much his suggestion), I remember being bored beyond belief as Thor Heyerdahl led us through the details of finding funding and plotting their course. I could not believe Dad had chosen this incredibly boring book for us. I am fairly certain that during the dull, early procedural part of the narrative, I tried to talk Dad out of the undertaking of reading the book. (Good thing I wasn’t on Heyerdahl’s crew, and that Dad knew it took hard work to get to the “good stuff”). As soon as the crew got out to sea on the raft, everything changed and the story became fascinating---exciting, glorious, intriguing. Full of adventure. Dad no doubt saw parallels with his own work: paying attention to detail, having to endure the boring tedium of thorough preparation and experimentation, and then the excitement of being able to reap the

rewards of undertaking an experiment to find an extremely gratifying result.

Back to Pooh, Dad ends his essay with the following:

Dad was imagining a future, telling us, “And so, perhaps, when we’ve mutated the genes and integrated the neurons and refined the biochemistry (of the brain), our descendants will come to see us rather as we see Pooh: frail and slow in logic, weak in memory and pale in abstraction, but usually warm-hearted, generally compassionate, and on occasion possessed of innate common sense and uncommon perception—as when Pooh and Piglet walked home thoughtfully together in the golden evening, and for a long time, were silent.

“When you wake in the morning, Pooh,” said Piglet at last, “what’s the first thing you say to yourself?”

“What’s for breakfast?” said Pooh. What do you say, Piglet?”

“I say I wonder what’s going to happen exciting *today*? Said Piglet.

Pooh nodded thoughtfully, “It’s the same thing.” he said.

Dad had another quote about the excitement of anticipation that I think came more to the point. I would like to end my talk with this quote from AA Milne, that Dad actually put in the middle of his article. I see this as a better ending point for us today, because those of us here still have more of our lives to live and enjoy. It is an observation about pleasure:

Christopher Robin asks Pooh, “What do you like doing best in the world, Pooh?” “Well”, said Pooh, “What I like best—“and then he had

to stop and think. Because although Eating Honey was a very good thing to do, there was a moment just before you began to eat it which was better than when you were, but he didn't know what that was called."

Here is to our having more such moments in our lives, and, at times, when we are full of the pleasure of anticipation, we could think of Pooh, and of Dad, having had many such moments in their very rich lives.