THE CHALLENGE OF CREATIVE LEADERSHIP

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I would like to talk about the most complicated material object in the universe. But before I do, I will say something about what has been happening on the scene. It is a kind of cliché to the people in my field, that in the last ten years more explosive progress has been made in understanding the brain - including the human brain - than in all of recorded history. Now, that is true because of the number of scientists involved. There have been more scientists working on the brain over the last ten years than in all of history. The really important is: What is unique about the brain, that extraordinarily dense and complicated object? If your life depended on it, and someone asked you what distinguishes the brain from everything else, what would you say? To answer this question is one of my tasks in this lecture.

I shall now tell you a fable dealing with Newtonian physics, science, and human intention. It will demonstrate the pitfalls of reductionistic explanation.

It is about a young man in New York who thought his girl was carrying on with somebody else. One hot summer day, he came home early to the cold-water flat they were living in in the Village to discover his rival. He looked in the closet, he looked under the bed, he started shouting, and his girl denied everything. She said, "You're crazy, there is no other guy! Forget it, you're just nuts! You're paranoid!" He soon found himself at the back window of the apartment, trembling with rage, when out of the corner of his eye, he saw a guy on the fire escape below, loosening his collar and wiping his brow. At that point he flew into an even greater rage, grabbed hold of a huge refrigerator, smashed it through the window, aimed it and dropped it on this man's head. The man dropped dead. Now, the scene switches to heaven and Saint Peter is admitting three men, saying, "You fulfilled all the criteria to enter heaven, but you have to tell me how you died for the records." The first fellow said, "Well, I thought there was some hanky-panky going on, so I came home early to catch my rival. My girl said he wasn't around, but I finally saw him on the fire escape below. I must have had an adrenaline fit, I got an enormous superhuman surge of strength, grabbed this massive refrigerator and dropped it on his head, and then I must have had a heart attack." The second man said, "I don't know, it was hot. I don't have enough money for an air conditioner in my office. I came home early to have a drink. I had the drink and stepped out on the fire escape. I loosened my collar, wiped my brow and then this damn refrigerator falls on my head." The third man said, "I don't know, I was just sitting in this refrigerator, minding my own business."

So you see the challenge to reductionism. It is not easy to fit in an equation, especially if you include the emotions.

*I do insist that physics is the skeleton of the world, but not necessarily all of the flesh. In fact, if the physicists say, as they are tempted to do these days, that they want to construct a theory of everything that would be self-consistent, that is wonderful. But where is the physicist? I know where the refrigerator is, but where is the physicist?

Now we are going further into Dr. Guntern's favorite precincts. You have to come to terms with language and consciousness. You do not think with language. Language is the secretary of your concepts, so that language is a speech-community interaction which has evolved, obviously, for very great advantage, in which under the auspices of a symbol - ba, wa, da, Hebrew words - or any other - you can categorize your concepts into a lexicon. Does the thinking occur in the language? No. The thinking occurs in the conceptual portion of the brain, but once a baby has a lexicon of 50 words, with enough verbs and nouns in a semantic meaning related to its values conceptually, an explosion occurs of the kind that happened with Helen Keller. On a crucial day this blind, dumb, deaf person of high intelligence felt water and realized that water was "w-a-t-e-r." She went nuts and wanted to invent everything in the world. At that moment she suffered the epiphany of language. She saw that water meant any kind of water, not just the thing trickling here. Then she wanted to know about tables, chairs, and wanted to name everything. The reason is that at that point, the number of possible ways of imagining through memory and creating a future concept of a world explodes, whereas if you do not have that, because there is not any syntax, you get just so far. It will be like these apes that have been taught and can do a certain number of things, but do not have the syntactical skill to build up endless chains of sentences. So, according to this theory, yes, language then adds to concepts immeasurably, just the way video adds to my capacity to change gestures or whatever. Or just as computers change my capability of solving equations. But it is not the real underlying thing.