The Active Side of Infinity
Carlos Castaneda

The Measurements of Cognition

"The end of an era" was, for don Juan, an accurate description of a process that shamans go through in dismantling the structure of the world they know in order to replace it with another way of understanding the world around them. Don Juan Matus as a teacher endeavored, from the very instant we met, to introduce me to the cognitive world of the shamans of ancient Mexico. The term "cognition" was, for me at that time, a bone of tremendous contention. I understood it as the process by which we recognize the world around us. Certain things fall within the realm of that process and are easily recognized by us. Other things don't, and remain, therefore, as oddities, things for which we have no adequate comprehension.

Don Juan maintained, from the start of our association, that the world of the sorcerers of ancient Mexico was different from ours, not in a shallow way, but different in the way in which the process of cognition was arranged. He maintained that in our world our cognition requires the interpretation of sensory data. He said that the universe is composed of an infinite number of energy fields that exist in the universe at large as luminous filaments. Those luminous filaments act on man as an organism. The response of the organism is to turn those energy fields into sensory data. Sensory data is then interpreted, and that interpretation becomes our cognitive system. My understanding of cognition forced me to believe that it is a universal process, as language is a universal process. There is a different syntax for every language, as there must be a slightly different arrangement for every system of interpretation in the world.

Don Juan's assertion, however, that the shamans of ancient Mexico had a different cognitive system, was, for me, equivalent to saying that they had a different way of communicating that had nothing to do with language. What I desperately wanted him to say was that their different cognitive system was the equivalent of having a different language but that it was a language nonetheless. "The end of an era" meant, to don Juan, that the units of a foreign cognition were beginning to take hold. The units of my normal cognition, no matter how pleasant and rewarding they were for me, were beginning to fade. A grave moment in the life of a man!

Perhaps my most cherished unit was my academic life. Anything that threatened it was a threat to the very core of my being, especially if the attack was veiled, unnoticed. It happened with a professor in whom I had put all my trust, Professor Lorca.

I had enrolled in Professor Lorca's course on cognition because he was recommended to me as one of the most brilliant academics in existence. Professor Lorca was rather handsome, with blond hair neatly combed to the side. His forehead was smooth, wrinkle-free, giving the appearance of someone who had never worried in his life. His clothes were extremely well tailored. He didn't wear a tie, a feature that gave him a boyish look. He would put on a tie only to face important people.

On my memorable first class with Professor Lorca, I was bewildered and nervous at seeing how he paced back and forth for minutes that stretched themselves into an eternity for me. Professor Lorca kept on moving his thin, clenched lips up and down, adding immensities to the tension he was generating in that closed-window, stuffy room. Suddenly, he stopped walking. He stood in the center of the room, a few feet from where I was sitting, and, banging a carefully rolled newspaper on the podium, he began to talk.

"It'll never be known..." he began.

Everyone in the room at once started anxiously taking notes.

"It'll never be known," he repeated, "what a toad is feeling while he sits at the bottom of a pond and interprets the toad world around him." His voice carried a tremendous force and finality. "So, what do you think this thing is?" He waved the newspaper over his head.

He went on to read to the class an article in the newspaper in which the work of a biologist was reported. The scientist was quoted as describing what frogs felt when insects swam above their heads.

"This article shows the carelessness of the reporter, who has obviously misquoted the scientist," Professor Lorca asserted with the authority of a full professor. "A scientist, no matter how shoddy his work might be, would never allow himself to anthropomorphize the results of his research, unless, of course, he's a nincompoop."

With this as an introduction, he delivered a most brilliant lecture on the insular quality of our cognitive system, or the cognitive system of any organism, for that matter. He brought to me, in his initial lecture, a barrage of new ideas and made them extremely simple, ready for use. The most novel idea to me was that every individual of every species on this earth interprets the world around it, using data reported by its specialized senses. He asserted that human beings cannot even imagine what it must be like, for example, to be in a world ruled by echolocation, as in the world of bats, where any inferred point of reference could not even be conceived of by the human mind. He made it quite clear that, from that point of view, no two cognitive systems could be alike among species.

As I left the auditorium at the end of the hour-and-a-half lecture, I felt that I had been bowled over by the brilliance of Professor Lorca's mind. From then on, I was his confirmed admirer. I found his lectures more than stimulating and thought provoking. His were the only lectures I had ever looked forward to attending. All his eccentricities meant nothing to me in comparison with his excellence as a teacher and as an innovative thinker in the realm of psychology.

When I first attended the class of Professor Lorca, I had been working with don Juan Matus for almost two years. It was a well-established pattern of behavior with me, accustomed as I was to routines, to tell don Juan everything that happened to me in my everyday world. On the first opportunity I had, I related to him what was taking place with Professor Lorca. I praised Professor Lorca to the skies and told don Juan unabashedly that Professor Lorca was my role model. Don Juan seemed very impressed with my display of genuine admiration, yet he gave me a strange warning.

"Don't admire people from afar," he said. "That is the surest way to create mythological beings. Get close to your professor, talk to him, see what he's like as a man. Test him. If your professor's behavior is the result of his conviction that he is a being who is going to die, then everything he does, no matter how strange, must be premeditated and final. If what he says turns out to be just words, he's not worth a hoot."
I was insulted no end by what I considered to be don Juan's callousness. I thought he was a little bit jealous of my feelings for Professor Lorca. Once that thought was formulated in my mind I felt relieved; I understood everything.

"Tell me, don Juan," I said to end the conversation on a different note, "what is a being that is going to die, really? I have heard you talk about it so many times, but you haven't actually defined it for me."

"Human beings are beings that are going to die," he said.

"Sorcerers firmly maintain that the only way to have a grip on our world, and on what we do in it, is by fully accepting that we are beings on the way to dying. Without this basic acceptance, our lives, our doings, and the world in which we live are unmanageable affairs."

"But is the mere acceptance of this so far-reaching?" I asked in a tone of quasi-protest.

"You bet your life!" don Juan said, smiling. "However, it's not the mere acceptance that does the trick. We have to embody that acceptance and live it all the way through. Sorcerers throughout the ages have said that the view of our death is the most sobering view that exists. What is wrong with us human beings, and has been wrong since time immemorial, is that without ever stating it in so many words, we believe that we have entered the realm of immortality. We behave as if we were never going to die—an infantile arrogance. But even more injurious than this sense of immortality is what comes with it: the sense that we can engulf this inconceivable universe with our minds."

A most deadly juxtaposition of ideas had me mercilessly in its grip: don Juan's wisdom and Professor Lorca's knowledge. Both were difficult, obscure, all-encompassing, and most appealing. There was nothing for me to do except follow the course of events and go with them wherever they might take me.

I followed to the letter don Juan's suggestion about approaching Professor Lorca. I tried, for the whole semester, to get close to him, to talk to him. I went religiously to his office during his office hours, but he never seemed to have any time for me. But even though I couldn't speak to him, I admired him unbiassedly. I even accepted that he would never talk to me. It didn't matter to me; what mattered were the ideas that I gathered from his magnificent classes.

I reported to don Juan all my intellectual findings. I had done extensive reading on cognition. Don Juan Matus urged me, more than ever, to establish direct contact with the source of my intellectual revolution.

"It is imperative that you speak to him," he said with a note of urgency in his voice. "Sorcerers don't admire people in a vacuum. They talk to them; they get to know them. They establish points of reference. They compare. What you are doing is a little bit infantile. You are admiring from a distance. It is very much like what happens to a man who is afraid of women. Finally, his gonads overrule his fear and compel him to worship the first woman who says 'hello' to him."

I tried doubly hard to approach Professor Lorca, but he was like an impenetrable fortress. When I talked to don Juan about my difficulties, he explained that sorcerers viewed any kind of activity with people, no matter how minute or unimportant, as a battlefield. In that battlefield, sorcerers performed their best magic, their best effort. He assured me that the trick to being at ease in such situations, a thing that had never been my forte, was to face our opponents openly. He expressed his abhorrence of timid souls who shy away from interaction to the point where even though they interact, they merely infer or deduce, in terms of their own psychological states, what is going on without actually perceiving what is really going on. They interact without ever being part of the interaction.

"Always look at the man who is involved in a tug of war with you," he continued. "Don't just pull the rope; look up and see his eyes. You'll know then that he is a man, just like you. No matter what he's saying, no matter what he's doing, he's shaking in his boots, just like you. A look like that renders the opponent helpless, if only for an instant; deliver your blow then."

One day, luck was with me: I cornered Professor Lorca in the hall outside his office.

"Professor Lorca," I said, "do you have a free moment so I could talk to you?"

"Who in the hell are you?" he said with the most natural air, as if I were his best friend and he were merely asking me how I felt that day.

Professor Lorca was as rude as anyone could be, but his words didn't have the effect of rudeness on me. He grinned at me with tight lips, as if encouraging me to leave or to say something meaningful.

"I am an anthropology student, Professor Lorca," I said. "I am involved in a field situation where I have the opportunity to learn about the cognitive system of sorcerers."

Professor Lorca looked at me with suspicion and annoyance. His eyes seemed to be two blue points filled with spite. He combed his hair backward with his hand, as if it had fallen on his face.

"I work with a real sorcerer in Mexico," I continued, trying to encourage a response. "He's a real sorcerer, mind you. It has taken me over a year just to warm him up so he would consent to talk to me."

Professor Lorca's face relaxed; he opened his mouth and, waving a most delicate hand in front of my eyes, as if he were twirling pizza dough with it, he spoke to me. I couldn't help noticing his enameled gold cuff links, which matched his greenish blazer to perfection.

"And what do you want from me?" he said.

"I want you to hear me out for a moment," I said, "and see if whatever I'm doing may interest you."

He made a gesture of reluctance and resignation with his shoulders, opened the door of his office, and invited me to come in. I knew that I had no time at all to waste and I gave him a very direct description of my field situation. I told him that I was being taught procedures that had nothing to do with what I had found in the anthropological literature about shamanism.
He moved his lips for a moment without saying a word. When he spoke, he pointed out that the flaw of anthropologists in general is that they never allow themselves sufficient time to become fully cognizant of all the nuances of the particular cognitive system used by the people they are studying. He defined "cognition" as a system of interpretation, which through usage makes it possible for individuals to utilize, with the utmost expertise, all the nuances of meaning that make up the particular social milieu under consideration.

Professor Lorca's words illuminated the total scope of my field-work. Without gaining command of all the nuances of the cognitive system of the shamans of ancient Mexico, it would have been thoroughly superfluous for me to formulate any idea about that world. If Professor Lorca had not said another word to me, what he had just voiced would have been more than sufficient. What followed was a marvelous discourse on cognition.

"Your problem," Professor Lorca said, "is that the cognitive system of our everyday world with which we are all familiar, virtually from the day we are born, is not the same as the cognitive system of the sorcerers' world."

This statement created a state of euphoria in me, I thanked Professor Lorca profusely and assured him that there was only one course of action in my case: to follow his ideas through hell or high water.

"What I have told you, of course, is general knowledge," he said as he ushered me out of his office, "Anyone who reads is aware of what I have been telling you."

We parted almost friends. My account to don Juan of my success in approaching Professor Lorca was met with a strange reaction. Don Juan seemed, on the one hand, to be elated, and on the other, concerned.

"I have the feeling that your professor is not quite what he claims to be," he said, "That's, of course, from a sorcerer's point of view. Perhaps it would be wise to quit now, before all this becomes too involved and consuming. One of the high arts of sorcerers is to know when to stop. It appears to me that you've gotten from your professor all you can get from him."

I immediately reacted with a barrage of defenses on behalf of Professor Lorca. Don Juan calmed me down. He said that it wasn't his intention to criticize or judge anybody, but that to his knowledge, very few people knew when to quit and even fewer knew how to actually utilize their knowledge.

In spite of don Juan's warnings, I didn't quit; instead, I became Professor Lorca's faithful student, follower, admirer. He seemed to take a genuine interest in my work, although he felt frustrated no end with my reluctance and inability to formulate clear-cut concepts about the cognitive system of the sorcerers' world.

One day, Professor Lorca formulated for me the concept of the scientist-visitor to another cognitive world. He conceded that he was willing to be open-minded, and toy, as a social scientist, with the possibility of a different cognitive system. He envisioned an actual research in which protocols would be gathered and analyzed. Problems of cognition would be devised and given to the shamans I knew, to measure, for instance, their capacity to focus their cognition on two diverse aspects of behavior.

He thought that the test would begin with a simple paradigm in which they would try to comprehend and retain written text that they read while they played poker. The test would escalate, to measure, for instance, their capacity to focus their cognition on complex things that were being said to them while they slept, and so on. Professor Lorca wanted a linguistic analysis to be performed on the shamans' utterances. He wanted an actual measurement of their responses in terms of their speed and accuracy, and other variables that would become prevalent as the project progressed.

Don Juan veritably laughed his head off when I told him about Professor Lorca's proposed measurements of the cognition of shamans.

"Now, I truly like your professor," he said. "But you can't be serious about this idea of measuring our cognition. What could your professor get out of measuring our responses? He'll get the conviction that we are a bunch of morons, because that's what we are. We cannot possibly be more intelligent, faster than the average man. It's not his fault, though, to believe he can make measurements of cognition across worlds. The fault is yours. You have failed to express to your professor that when sorcerers talk about the cognitive world of the shamans of ancient Mexico they are talking about things for which we have no equivalent in the world of everyday life.

"For instance, perceiving energy directly as it flows in the universe is a unit of cognition that shamans live by. They see how energy flows, and they follow its flow. If its flow is obstructed, they move away to do something entirely different. Shamans see lines in the universe. Their art, or their job, is to choose the line that will take them, perception-wise, to regions that have no name. You can say that shamans react immediately to the lines of the universe. They see human beings as luminous balls, and they search in them for their flow of energy. Naturally, they react instantly to this sight. It's part of their cognition."

I told don Juan that I couldn't possibly talk about all this to Professor Lorca because I hadn't done any of the things that he was describing. My cognition remained the same.

"Ah!" he exclaimed. "It's simply that you haven't had the time yet to embody the units of cognition of the shamans' world."

I left don Juan's house more confused than ever. There was a voice inside me that virtually demanded that I end all endeavors with Professor Lorca. I understood how right don Juan was when he said to me once that the practicalities that scientists were interested in were conducive to building more and more complex machines. They were not the practicalities that changed an individual's life course from within. They were not geared to reaching the vastness of the universe as a personal, experiential affair. The stupendous machines in existence, or those in the making, were cultural affairs, the attainment of which had to be enjoyed vicariously, even by the creators of those machines themselves. The only reward for them was monetary.

In pointing out all of that to me, don Juan had succeeded in placing me in a more inquisitive frame of mind. I really began to question the ideas of Professor Lorca, something I had never done before. Meanwhile, Professor Lorca kept spouting astounding truths about cognition. Each declaration was more severe than the preceding one and, therefore, more incisive.

At the end of my second semester with Professor Lorca, I had reached an impasse. There was no way on earth for me to bridge the two lines of thought: don Juan's and Professor Lorca's. They were on parallel tracks. I understood Professor Lorca's drive to qualify and quantify the study of cognition. Cybernetics was just around the corner at that time, and the practical aspect of the studies of
cognition was a reality. But so was don Juan's world, which could not be measured with the standard tools of cognition. I had been privileged to witness it, in don Juan's actions, but I hadn't experienced it myself. I felt that that was the drawback that made bridging those two worlds impossible.

I told all this to don Juan on one of my visits to him. He said that what I considered to be my drawback, and therefore the factor that made bridging these two worlds impossible, wasn't accurate. In his opinion, the flaw was something more encompassing than one man's individual circumstances.

"Perhaps you can recall what I said to you about one of our biggest flaws as average human beings," he said.

I couldn't recall anything in particular. He had pointed out so many flaws that plagued us as average human beings that my mind reeled.

"You want something specific," I said, "and I can't think of it." "The big flaw I am talking about," he said, "is something you ought to bear in mind every second of your existence. For me, it's the issue of issues, which I will repeat to you over and over until it comes out of your ears."

After a long moment, I gave up any further attempt to remember.

"We are beings on our way to dying," he said. "We are not immortal, but we behave as if we were. This is the flaw that brings us down as individuals and will bring us down as a species someday."

Don Juan stated that the sorcerers' advantage over their average fellow men is that sorcerers know that they are beings on their way to dying and they don't let themselves deviate from that knowledge. He emphasized that an enormous effort must be employed in order to elicit and maintain this knowledge as a total certainty.

"Why is it so hard for us to admit something that is so truthful?" I asked, bewildered by the magnitude of our internal contradiction.

"It's really not man's fault," he said in a conciliatory tone. "Someday, I'll tell you more about the forces that drive a man to act like an ass."

There wasn't anything else to say. The silence that followed was ominous. I didn't even want to know what the forces were that don Juan was referring to.

"It is no great feat for me to assess your professor at a distance," don Juan went on. "He is an immortal scientist. He is never going to die. And when it comes to any concerns about dying, I am sure that he has taken care of them already. He has a plot to be buried in, and a hefty life insurance policy that will take care of his family. Having fulfilled those two mandates, he doesn't think about death anymore. He thinks only about his work.

"Professor Lorca makes sense when he talks," don Juan continued, "because he is prepared to use words accurately. But he's not prepared to take himself seriously as a man who is going to die. Being immortal, he wouldn't know how to do that. It makes no difference what complex machines scientists can build. The machines can in no way help anyone face the unavoidable appointment: the appointment with infinity.

"The nagual Julian used to tell me," he went on, "about the conquering generals of ancient Rome. When they would return home victorious, gigantic parades were staged to honor them. Displaying the treasures that they had won, and the defeated people that they had turned into slaves, the conquerors paraded, riding in their war chariots. Riding with them was always a slave whose job was to whisper in their ear that all fame and glory is but transitory.

"If we are victorious in any way," don Juan went on, "we don't have anyone to whisper in our ear that our victories are fleeting. Sorcerers, however, do have the upper hand; as beings on their way to dying, they have someone whispering in their ear that everything is ephemeral. The whisperer is death, the infallible advisor, the only one who won't ever tell you a lie."