

January 1, 1988 (vol. 3, no. 9)

Dear Colleague:

I was looking out of the window of the Memorial Union cafeteria admiring the shimmering light and haze over the lake and its distant shore when my attention was suddenly caught by a trash can only about ten feet from me. It is a well-designed trash can and it stands there like R2D2 on the snow-covered terrace. But if there is one there must be others. So I started to count them, 1, 2, 3, 4....34. No less than thirty-four of them marched into my field of vision. And what started as a bucolic scene was transformed into a city garbage dump. The trash cans have always been there. I just didn't see them. The shimmering lake is still there. I no longer see it. I am reminded of that well known perception test: you see a beautiful young woman in the picture and then, through a sudden shift of focus, you see an old hag. Objectively, nothing has changed; subjectively, the world has flipped.

Perception is, potentially, one source of instability, but we have a lot of control over what we choose to see. We can guard against the flip of reality by being determinedly selective. Unfortunately, sometimes things happen to us that are beyond our control. At the crossroad, I saw one car about to run into another. I caught a glimpse of the driver's face. It had the look of: "the accident has not yet occurred. It need not occur! I may yet make a good story of the narrow miss." But, of course, it did occur--two seconds later. Nobody died but the day was spoilt for several people.

Like the West Indian writer V.S. Naipaul I am haunted by the world's instability. It still seems to me miraculous that a postcard carelessly thrown into a mailbox will eventually find its way to the other side of the earth. That's order--the opposite of disorder or chaos. But I am surprised to learn that "chaos" in archaic Greek means gap rather than disorder. Chaos refers to the primordial gap formed when heaven was plied apart from the earth and through the gap Kronos, the Titans, Zeus, and in time all sorts of creatures emerged. In other words, no chaos, no creativity no life. The well integrated world, in which the sky fits snugly into the earth and the clogs of one wheel mesh perfectly with those of another, is a dead world. We need a degree of instability, a degree of chaos. Not too much, of course. Here I run into another paradox. Perfect chaos--in the sense now of disorder or randomness--is very difficult to achieve. The Stanford mathematician Persi Diaconis has devoted years of his life in search of it.

Happy New Year--a bit of chaos for you, but not too much unless you are a mathematician.

Y. T.