

The Next Day

By Professor Jan Willem de Graaf

Professor of Brain and Technology, Saxion University of Applied Sciences, Deventer, Netherlands

A colleague told me he had walked on the Ramblas in Barcelona exactly one day before the terror attack, at exactly the same time of day. He walked down the street, in the same direction as the terrorist controlled van would drive the next day. He said: "When you walk downwards, you don't look behind" and "The choice to go this day and not a day later was a coincidence." Precisely because his course is a statistic, I think about it for a moment ...

Basically, every moment in time has an infinite number of possible sequels. Usually, however, we can tell perfectly what the next step will be, what we will do next. But in situations that turn out to have a major impact, this is often not the case, for instance in a casual affair when you meet someone who becomes your life partner, or less fortunate, when you get part of a collision (or attack) on the street with far-reaching consequences. In the run-up to this, many small random events have taken place. Events that could also have happened differently, or could have been skipped completely: whether or not to give the dog a biscuit before you get in the car, or to put the dishes in the dishwasher before leaving. Or to visit the Ramblas in Barcelona one day later.

Although usually very predictable, the outcome of (inter) action on both the individual and the group level is in principle not predictable (undetermined, or chaotic). Mathematically, this is called non-linear dynamics, or non-deterministic systems, or chaos. There are so many forces involved in the "system" as a whole and the interaction between these forces is very complex. Sometimes very small variations in the interplay of forces (eg whether or not the coffee cup is placed in the vascular machine) produce gigantic outcome variations (an accident, or a life-changing encounter). In other words, the future is not determined, while we live as if the future is fixed. And of course, things usually can be guessed. Moreover, history seems determined: things happened because it could not be otherwise. But we build entire life expectancies and theories on a kind of illusionary control. To gain more insight into this, it is important to look at "surprising turns" of events.

Game of Thrones is highly appreciated, among other things, because there is room for surprising turns of events. Accidents happen and history is full of surprising turns. Every day producers of music, films and various other new products are confronted with unexpected disappointments, or successes. Due to their extreme positions, blame and fame are more often the result of (un) favourable conditions and surprising twists, than of pure determination. As humans, we understand this badly. Thinking in if-then-else causality forms an elementary part of our cognitive constitution (psychology). Take *Thriller* from Michael Jackson, or *Wish You Were Here* from Pink Floyd (or any album that has reached the top). These albums do always find new fans. That is because it is history; its success is conceived as determined and inevitable. But we hardly realize that there are far more albums, some of them better, some of them worse, that disappeared in complete oblivion. History - both success and failure - emerges from a complex interplay of forces, rather than from the inherent power of the subjects (albums, stars). Again, this is cognitively very difficult to understand.

Herman van Veen sang a song *If Things had Gone a Bit Different*. Then we lived in the Third Reich. Or no one had ever heard of Christianity or Islam. Or the slaves were masters and the masters were slaves. The question now is whether, for example, in psychology, or education, we should be more open to surprising turns on the scale of the individual. If a child get stuck at school, we can tell in retrospect that only a good diagnosis should have been made on time. But aren't we creating our own "evidence" from our illusion of control? Isn't it possible that a successful child becomes unhappy (or unsuccessful) due to arbitrary small changes in the chaotic interplay of forces? Otherwise, isn't it also possible that, for example, an autistic child grows spontaneously into a well-integrated citizen?

Anyway, I am glad my "Spanish" colleague didn't wait for the next day. Especially what does not matter to people in general, matters to us as individuals in particular. As individuals, we are not exactly identified but we are positioned! George Michael: *Turn a Different Corner and We Never Would Have Met!* Surprisingly we turned from Bowie (*The Next Day*) to Michael!