



Le Bug Humain

- Pourquoi Notre Cerveau Nous Pousse
À Détruire La Planète
Et Comment L'en Empêcher

par **Sébastien BOHLER** Robert Laffont, 2019, 267 pages

Résumé : Il y a 200 000 ans, depuis l'Afrique, l'humanité partait à la conquête du monde. Elle détenait une arme secrète son cerveau. Une machine à penser, à tirer parti de son environnement, à se reproduire et à dominer. Longtemps notre meilleur allié, notre cerveau risque aujourd'hui de causer notre perte. Car il existe un défaut de conception, un véritable bug, au coeur de cet organe

extraordinaire : les neurones en charge d'assurer notre survie ne sont jamais rassasiés et réclament toujours plus de nourriture, de sexe et de pouvoir. Ainsi, nous sommes 8 milliards d'êtres humains sur Terre à rechercher encore et toujours la croissance dans tous les domaines. Pour ce faire, notre espèce hyperconsommatrice surexploite la planète, modifie son écosystème... et se met gravement en péril. Comment se fait-il que, ayant conscience de ce danger, nous ne parvenions pas à réagir ? Peut-on résoudre ce bug et redevenir maîtres de notre destin ? Oui, à condition d'analyser en chacun de nous et non plus seulement à l'échelon économique et politique ce mécanisme infernal qui pousse notre cerveau à en demander toujours plus.

Biographie: Sébastien Bohler, docteur en neurosciences et rédacteur en chef du magazine Cerveau & Psycho, apporte sur la question du devenir de notre humanité un éclairage aussi déstabilisant que nécessaire.

Study: Today is a wet day. Dull weather does not provide much energy to the ones under it so we have time to catch up. My daughter is catching up on her sleep and I'm catching up on writing what could save the world. Or maybe not. Everyone seems to pass one's articles and opinions nowadays; it must be for such a reason. Or maybe it is because we need to satisfy our own self. Everyone loves doing that and you can't help if it's wired in our brain. I have recently learnt that one of the older parts of our brain (i.e. present in very early forms of life), called the striatum, rewards the rest with dopamine when we successfully accomplish behaviours which help us to get food, sex, social recognition (sending a text is in this category) and information. And all that with an effort as limited as possible. All of those have helped our ancestors transferring their genes. If we successfully do something that goes towards those goals, our brain is rewarded.

The key is to be wise enough to steer that strength in us to do good things, useful for our society and our future. Educating ourselves and our kids to do that is not straightforward.

I owe this knowledge to a book I have recently read « *Le bug humain* » from Sébastien Bohler. It's written in French so writing in English is the most logical choice to help spreading its knowledge. I'm not writing an exact transcript with all the details and references, for that you must read the book. On the other hand, I have noted what I remembered from it along with my own views and conclusions. I'm not a philosopher, an artist or a politician but as a plain educated middle-aged man with normal children and usual problems I'm as entitled as anyone to share my views on life.

There are many angles to view life. Most of the time, we are short-sighted: depending on our background we take some things for given “technology is good” or “the richer the happier”. We forget that there is an infinite way of organising a society and an infinite way for living our life. There is one thing however, that we can’t change: our brain at birth.

The book explains how the striatum (a deep-down part of our brain) provides dopamine (making us feel good) when we do anything which tends to help survival of ourselves and of our descendants. It consequently encourages us to get:

- Food
- Sex
- Social recognition
- Information

And all that with an effort as limited as possible. If we successfully do something that goes toward those goals, our brain is automatically rewarded.

The brain has not been fitted with any kind of limit in researching those things (there’s no “fine, I have what I need”) as it has never been a competitive advantage in the past. A mouse is not more likely to reproduce if she says “I have enough, I’m leaving some food for whoever comes next”. That is the heart of the problem of our modern society. Fortunately, the cortex, another part of the brain much more developed in humans, can get us to work for a better future. If we are trained for it (trained to wait), it can directly inhibit the striatum (there is a channel in the brain for that according to what I understood).

In the same logic, men who were obsessed by sex and women obsessed with protecting their babies were more likely to pass on their genes to future generations and that’s why nowadays men are addicted to online porn and women to online cats’ videos! Of course, concluding that women are to stay at home minding kids and men to cheat on them outside could be seen as a conclusion but the author points out that it is socially unacceptable and will explain how to trick our brain out of this logic (I’m at that point in the book, don’t worry I will continue and learn to trick my brain instead of cheating on my wife).

For the same reason, we are naturally competitive. We always want better things than the neighbours and the manufacturer knows that. Ads are based on that and works too well. Industries keep producing newer and better products that we are too happy to buy whether we need them or not (generally we don’t). So the economy as it is currently organised encourages production and demand based on our natural instincts which are strengthened as a result.

We are fascinated by people who succeed because detecting the winners is also a way to promote oneself/survive/reproduce. That’s why we like watching sport shows or, I think, Game of Thrones.

Our craving for information leads us to always be distracted by anything which happens in the news, on social media or wherever. This leads to considerable amount of time wasted (some people have

tried to quantify) along with overuse of Internet (and the resulting toll on the planet through energy consumption). In some case, we suffer from FOMO (Fear Of Missing Out - misplaced fear of missing out on what's going on somewhere in the world or our circle of friends).

We are interested in being valued by our peers as well as doing as little as possible (both are competitive advantages). However, it's hard to be valuable if you are unemployed. The solution: pretend that you are great on social media. To fend that off: bring up your kids by giving them a sense of responsibility.

In some cases, social media is not enough to keep people happy. They need to play games. There are the ones where you bet money. For gamers, being on the brink of losing / winning all is pleasurable. You can be addicted to it and lose a lot in them but most of us are not concerned by them. On the other hand, we all know that the best way to have an imaginary life with everything you can dream of in it are video games (with the junk food near the sofa). Here also, addictions to games ensue and 6% of French youngster are in this case apparently. It's also a powerful tool to becoming a couch potato. And the global economy encourages it.

Of course, we all know that such a life of doing nothing meaningful but staying in front of video games or movies and buying new things is neither good for us nor for the environment but as such we don't care. Our brain is wired to think about the present and not worry about the future. If I offer you money and get you to choose between getting it now or in a year/month/week, you will always choose to have it now. That makes sense but it might make less sense if today's sum is smaller than the one you would get in a year's time. In this case, each of us is different: some will prefer to have a small reward now and others a bigger one later. Unsurprisingly, the latter have a better chance of being successful in life. You can do the same tests with kids and sweets: one now or two in 3 minutes. I have not dared doing that with my own kids yet. Too scared of the result!

So we have to train ourselves and our offspring to wait. It used to be straightforward: in the old days, if you wanted fruit, you had to wait until they were ripe, if you wanted to buy something, you had to wait until you had enough money. However, society nowadays is organized to serve our impatient striatum (if you want fruit out of season, no problem they are imported or frozen, if you want to buy something, no problem you can borrow the money). That makes it becoming even more impatient and the society and technology follows and provides services at an always faster pace (if a provider can't follow, it is abandoned by the customer). Of course, it is the exact same thing for communication and entertainment. It's obvious that such an approach is a dead end on an environmental point of view.

Early on, some mechanisms have been tried to keep the striatum on hold. Religion is one thing. Early on, pious people have not been so keen on science and technology foreseeing that they reveal the animal urges in us. You can easily see the similarity between the Seven Deadly Sins and the primary goals of our striatum. Will power is another but it does not work so well. Being in front of a chocolate bar and renouncing to it is good but you won't have much strength left to renounce to waste your time on Facebook and do some work instead. Will power consumes our energy.

Let's then consider what could work. The book suggested interesting leads but did not develop them as much as the details of our basic brain functioning. It's nevertheless the most interesting to me.

First of all, we have to appreciate what we have. To illustrate that, the author compares two ways of eating raisins: one consisting in wolfing down several at a time while discussing with other people or checking your mobile, the other consists in taking your time to look at it, touch it, smell it, taste it and only then chew it slowly. With the second approach, your brain will benefit much more from a single raisin than it would from a whole bowl being eaten unaware. Conclusion: much less resources used for a greater benefit.

Secondly, taking the famous example of Anjezë Gonxhe Bojaxhiu. She has devoted all her life to the poor not being paid or rewarded in any way but because she felt good doing it. Before becoming Mother Teresa, her parents had conditioned her into sharing with her peers and her brain evolved in this direction. Your striatum can help you being good because it sees it as bringing social recognition and help your descendants thrive. If we could tune our thought pattern to acknowledge people who are good in saving resources instead of people who are good in combat, whatever the discipline (soccer, tennis, rugby, political debate...), that would help conditioning our children into feeling good, being environmental friendly. For now, the general trend among people (me first) is “why would I bother to make significant efforts against climate change when the rest of us don’t even try. With so many people going away in Asia for their holiday, I don’t see why I would prevent myself from flying to this nice island a few thousand miles away from where I live.”

If we can do that, we will also more naturally learn about what takes a toll on our environment. Everyone knows that cars use petrol and try not to use it if they don’t have too (well, except for a few lost causes). However, I’m not sure that many people know that watching Netflix makes the sea levels rise (lots of hardware and energy is used to that end). If we all know better the consequences of what we are doing, we might accept easier to change our habits.

Third (I’m not sure it was in this order in the book, I’m trying to follow the order of difficulty to roll out), it is obvious that we can’t fully tame our primary instincts (we will always look for food, sex, social recognition) but we don’t need the economy to encourage them even more. If we could reduce the ads that encourage us to have better assets than our peers (or increase people’s ability to ignore them), that might help for people to use only what they need. When you read an economics specialist, they keep thinking that demand must be high for everyone to be happy. They don’t seem to put lots of emphasis on the fact that earth is finite and such logic is doomed to disaster. Maybe they are convinced that solutions will be found by engineers. I am an engineer and I can tell you that some problems don’t have an easy solution. I can see two of them: letting poorer people die (and in the end all of us) or reduce our consumption. Knowing if we could still be happy with a sustainable consumption is an open question. Will we be able to continue living in houses, heated up to a temperature of 16° in winter, having a few hot showers per week and changing what needs to be changed when necessary (electrical appliances, phones, cars for remote dwelling)? We may have to renounce to some things (reducing toys for kids and clothes for us for instance). One sure thing is that we can’t continue buying new stuff or travelling far all the time only because we have the money for it. Especially as the latter does not make us happier, if not the opposite.

I’m not sure where the change can come from or if a small virus will help but there are definitely things to do on a personal level by all of us. Not everyone is good at advocating but wisdom can build up and propagate, through the education we provide to our kids, through the discussions we have with our friends or family and through the so-criticized social medias. If they are used to spread wisdom instead of fake news, I can’t complain. The time we save by not running after new things and fame, we can spend it outside in nature. When the weather will improve.