

DR. FRANZISKA FRANK

24 KARAT SUCCESS



GOLDEN RULES FOR A
FULFILLED AND SUCCESSFUL
LIFE IN THE DIGITAL AGE

Karat 1: Blame it all on biology!

The myth of free will

Phineas Taylor Barnum (1810–1891) was a circus pioneer and exhibitor of unusual people – in particular tall, small, fat, hairy people, bearded women and Siamese twins. Barnum was a gifted fraud with great business acumen. One day he wondered how he could attract even more customers to his New York *American Museum*, which opened in 1841. An unemployed man who was offering his services for a dollar a day provided a solution. Barnum promised him \$1.50 a day and explained what he wanted him to do.² “‘Now,’ said I, ‘go and lay a brick on the sidewalk, at the corner of Broadway and Ann Street; another close by the Museum; a third diagonally across the way, at the corner of Broadway and Vesey Street, by the Astor House; put down the fourth on the sidewalk, in front of St. Paul’s Church opposite; then, with the fifth brick in hand, take up a rapid march from one point to the other, making the circuit, exchanging your brick at every point, and say nothing to anyone. Be as deaf as a post; wear a serious countenance; answer no questions; pay no attention to anyone but attend faithfully to the work; and at the end of every hour, by St. Paul’s clock, show this ticket at the Museum door; enter, walking solemnly through every hall in the building; pass out, and resume your work.’”

What happened? After a short time, hundreds of people, intrigued by the spectacle, joined in, paid to enter the museum so as not to lose sight of the mysterious man... and then lost themselves in the even more exciting museum.

Barnum’s intuition about human curiosity turns out to have a strong basis in science. Curiosity is a natural human impulse; for some people it is an instinct they just cannot resist. Neuroscientists understand why this is – information lights up our brains in the same way that food and sex does. They can see this by measuring the levels in our brain of dopamine – one of the chemicals responsible for transmitting signals between the nerve cells (neurons). Our body naturally releases dopamine when our impulse, or craving, is satisfied. Because dopamine makes us feel good, we follow our impulses.

But human beings are not alone in being 'naturally' curious. Various different species of animals share this instinct – not only monkeys and birds, but also a type of roundworm called *C. Elegans*, whose brain comprises just 302 neurons (humans have 86 billion³). *C. Elegans* explores its surroundings for more information – and is rewarded with a dopamine 'hit'.⁴ Curiosity can be fatal, of course (witness the old saying 'Curiosity killed the cat') but it usually leads to the discovery of new resources, such as food, partners, protection and so on.

So, if in this one natural impulse we are so similar, what exactly is the difference between humans and animals?

The famous American psychologist William James (1842–1910) sums it up like this: “Human behavior is more flexible and intelligent than that of other animals, because we have more instincts than they do, not less.”⁵ In other words, humans have more automatic decision-making processes than animals do. Yet the idea that we 'take' so many decisions without consciously thinking about them is difficult to swallow for a species that prides itself on its 'rational' decision-making. To understand what James's approach means in practice, we need to consider a few examples from the fields of reproduction and food.

- If a woman takes the contraceptive pill, she prefers a different type of man to the kind she would be attracted to if she was not taking the pill.⁶ Why? Sex, or, more precisely, reproduction, is essentially about complementing your own gene set as optimally as possible. We (unconsciously) seek out people whose genes are different from our own, which is why women who are not pregnant prefer men who are not similar to them. When a tall, blonde, brown-eyed, snub-nosed man stands in front of a short, red-haired, green-eyed, beak-nosed woman, their different genetic make-up is very obvious – and, therefore, there is a strong chance that they will find each other attractive. Provided, that is, that the woman is not on the pill.

A 'pregnant' woman (whether naturally or 'artificially' as a result of being on the pill) has a very different instinct, which is to seek protection for herself and her child. She is therefore more drawn to someone with a similar gene type to her own.

We clearly exercise less free will in choosing our partners than we imagine we do! Sad or sensible?

- When you are really hungry, you subconsciously fear potentially leaner times – and end up eating high-calorie food. On the other hand, if you are less hungry, you will be more interested in 'healthier' foods.⁷ The moral of this story is: Never write the weekly shopping list or go to the supermarket on an empty stomach.
- Men know exactly when 'the time is right': They tip lap dancers far more generously when the women are at their most fertile – even when quality of the dancing is the same. Women obviously radiate their fertility biochemically; men receive the signal subconsciously and pay accordingly. One study showed that during their fertile phase a dancer earns \$335 for a five-hour shift, compared to \$260 during 'normal' times and just \$185 when they are menstruating.⁸ By the way, men are also particularly protective of their partners when they are in the fertile part of their monthly cycle – especially when the relationship is relatively new. Subconsciously, they are trying to prevent their partner going off with a competitor, who also has an instinct for the women's enhanced 'attractiveness' at this stage of their cycle.⁹ Better to be alert than to lose someone to someone else's genes!
- When people are hungry, they tend to feel a greater sense of 'entitlement' than when they are full. What does that mean? Hungry people are much more likely to agree with sentences such as: "I deserve more than others" or "If I were on the *Titanic*, I would be entitled to be in one of the first lifeboats" or "I demand the best because I'm worth it".¹⁰ Hunger subconsciously directs our focus away from other people towards our own needs. So, make sure you negotiate your next pay rise before lunch, when you are likely to be most convinced that you are truly deserving it!
- If men train very hard, as US Marines do, and expose their bodies to an inhospitable environment, they afterwards prefer women with fuller faces.¹¹ Fuller faces in women promise fuller bodies, which are less likely to collapse immediately in case of hardships. And this preference permanently outlasts the exhausting training! This suggests that men who prefer thin women have not trained hard enough!

There is clearly a lot to be said for the power of human instincts, even if researchers these days prefer to call them 'automatic behaviors'. Why? It is almost impossible to determine what really is innate and what is shaped by our earliest socialization. The result of the research, however, is still the same: We often have no idea why we have decided for or against something, because our brains do so much work on a level that is difficult or impossible for us to access.

Let me give you an example. Swiss schoolchildren were asked to select 'their' skipper for a boat trip based on two portrait photos. The choice they made was fascinating because it matched 70 percent of the results of recent elections in northern France: The men depicted were not sailors at all but competing provincial politicians.¹² Most of the schoolchildren and adult voters chose the candidate with the more symmetrical and attractive face. Coincidence? Or catastrophe for democracy?

Even babies prefer more attractive faces: Three-month-old infants look at 'prettier' faces for longer than they do at less symmetrical ones.¹³ So what happens in the brains of children and voters during such a selection process? Apparently, people subconsciously perceive symmetry and attractiveness as an indication of healthy genetic material, and therefore often choose that over the alternative. Actually, this perception is well-founded: Studies show that attractive people are less prone to chronic disease and neuropsychological disorders.¹⁴ It seems, then, that people's programmed biological assumptions help influence decisions that go way beyond the good old enjoyable (and productive) mating.

No surprise then, that hundreds of studies suggest that more attractive people are more successful.¹⁵ It seems that better exam results, better degrees, better jobs, more money and higher social positions flow naturally to those who are easy on the eye. There are two explanations for this: one, attractive people receive 'instinctively' more attention and recognition at school¹⁶, as well as better jobs; and two, attractive people are generally more self-confident, which fuels their progress.

There are only a few downsides. For example, doctors do not take the pain of beautiful people seriously, preferring to smile at their lovely faces rather than heal the bodies behind them.¹⁷ What is more, some people are intimidated by the beauty of others¹⁸ – to the extent that a

more attractive candidate may (unconsciously) be rejected for a job in favor of a less attractive candidate.¹⁹

However, the majority of the relevant research indicates that attractiveness is, on the whole, very attractive.

Whatever we do – choose a partner, decide what to eat, vote for a politician or seek information – to a large extent the subconscious part of our brain makes decisions for us without the conscious part of our brain even noticing.

How exactly our subconscious works remains a mystery to neuroscientists and psychologists, who often resort to metaphors and symbols in their efforts to explain it. For example, it is helpful to visualize two systems in our brain working in tandem. Famous psychologist and Nobel prize winner Daniel Kahneman has coined the term 'fast and slow thinking' to describe this. One system ('system 1') is fast, works in the subconscious, can do many things at the same time and bubbles with instinctive decisions. The other system ('system 2') is slow, works with enormous cognitive effort, can only do one thing at a time, and has to work hard.²⁰ If we are learning something new, like driving, juggling, arithmetic or a new language, which requires a lot of effort and concentration, system 2 comes into play. However, once we have internalized the new behavior, system 1 takes over, allowing us to perform the tasks more easily because they have become instinctive. How often does an experienced driver still think about when to use the clutch and accelerator, for example? It also explains why experienced golfers use different regions of their brain compared to grass-hitting newcomers.²¹ The newcomers have far more activity in the limbic and planning regions, while the experts expend more energy in the regions that translate that which is perceived into powerful action (a process called 'visuomotor transformation'). And people who have been meditating for many years can focus more clearly on the object of meditation than the novice, thanks to their developed 'system 1'.²²

The inescapable conclusion of all this is that many of our subconscious processes – whether innate 'instincts' or acquired behavior patterns – are much faster and more efficient than our conscious processes. In the face of system 1 thinking, system 2 thinking typically quits and slinks off home.

There is a second concept (in addition to 'fast and slow thinking') that is also helpful in understanding our typical behavior patterns.²³ This holds that our brain actually consists of three brains. The first is the ancient reptile brain, which controls reproduction, body temperature, sleep and food (along with curiosity, which often leads to more food). The second is the early mammalian brain, which governs feelings such as affection, caring, stress and anger, as well as the survival mechanism 'Fight – Flight – Freeze'. The third is the later mammalian brain, which governs all that we describe as 'rational' – notably, awareness, analysis and goal-setting.

These three brain levels are interconnected and equal: none is superior nor more valuable than the others – not even our reasoning, which we often deem preferable to feelings. Descartes declared that thinking was the root of humanity, but modern neuroscience shows that feeling and thinking are inextricably linked – you cannot do one without the other. Full stop! This is illustrated by people who have suffered damage to the emotional centers in their brain. They can no longer make any decisions at all! Since every decision has an emotional element to it, the 'insensitive' person becomes irretrievably entangled in all the pros and cons.²⁴

Although our three brain levels are of equal value, they are not equally accessible to us – by which I mean we have differing levels of influence over them. We have scarcely any influence over our reptile brain, for example. Try controlling your reproductive impulses – nearly impossible. (Yet, of course, we can consciously choose whether or not to follow those impulses.) The same applies to other bodily functions. The only people who can, reputedly, influence their reptile brain are experienced yogis – it is reported that they can regulate, for instance, their body temperature with the help of certain meditation techniques.²⁵

We have slightly more influence over our second (early mammalian) brain with its emotions, but often only after the emotion has already coursed through the body in its chemical form. It takes a lot of practice to prevent an emotion from arising or to override the Fight-Flight-Freeze response.

It is really only the third level of thinking that we can influence ourselves to any meaningful extent. And even there, as I will show in

many future chapters, system 1 causes us many problems which we need to deal with in order to master the requirements of our modern life.

We therefore have to come to terms with the fact that the different evolutionary stages of our brain make us estimate, evaluate, feel and decide a huge number of things without us realizing it. Instead of devoting ourselves to the ingenious thinking facilitated by our late mammalian brain, our earlier 'subconscious' brain persistently causes us to automatically react to important biological stimuli. All system 2 can do is wearily shake its considered and sophisticated head.

1st golden rule

Whatever your tools, your subconscious rules!

We have to recognize and accept the constraints on our ability to act rationally. Our 'animal' behavioral patterns, which have been optimized to allow us to survive and reproduce, are part of our make-up – and, as long as they remain in our subconscious, can prevail against conscious decision-making. So be aware of your considerable limitations as a rational being!



Brief story to delve more deeply into golden rule number 1

In a famous story told by researcher Gary Klein, the leader of a team of US firefighters is surprised because the fire they are fighting refuses to go out. What is more, something about the whole situation feels very odd. He cannot put a finger on exactly what it is, but on impulse he orders his people to run out of the building. Seconds later, the floor where they had been standing collapses.²⁶

Did the leader of the troop spend a lot of time analyzing scenarios and considering options? No; he acted on 'gut instinct' – or what the researchers pithily term 'Recognition-Primed Decision-Making'. For years the experienced firefighter had filled his brain with many different types of fires: he had observed them and stored in his brain their colors, noises and patterns, all of them subject to physical laws. As a result, his brain was like a computer programmed with thousands of data points. This meant that his brain was also full of answers to different fire scenarios. He had fed his neatly working hardware and

could therefore rely on his intuition, which cried: “Run away!” Mechanically working through all the details and possible reasons (“surprisingly quiet, little smoke”) would have taken too long in this literally explosive situation. But he could trust his ‘gut feeling’ as an expert. So, in fact, gut feeling is not instinctive at all – it is based on the individual’s expert knowledge of situations that are subject to certain laws.²⁷

Herbert Simon, the famous American social scientist, describes it as follows: “Intuition is nothing more and nothing less than recognition.”²⁸ But this means that gut feeling serves us only in certain situations – those that are subject to laws of nature. Unfortunately, many things we face in our everyday lives are changeable and erratic and therefore not subject to immutable rules – the behavior of friends, family, colleagues and markets, to name but a few. Here our intuition is often wrong, and we would be better advised to devote some system 2 thinking to such matters!

Lessons for you personally

At work

- You are working on an unpleasant, stressful and unsatisfying project. You wonder if this can be healthy in the long run. Indeed, studies show that about 50 percent of people unconsciously and automatically (system 1) eat more when they are stressed than when they are not stressed – with obvious implications for their physical and mental wellbeing. If you fall into this camp, what can you do about it? First of all, step on the scales in order to help you develop an awareness of your previously subconscious food-related reaction. Then get some positive feedback on the project or yourself. The more you feel accepted by the group, the less stress you will feel and the less food you will eat.²⁹ What a great thing: deflate through a mate!
- You have some very attractive colleagues or team members. Beware your instinctive assumption that they are better at their jobs than their less attractive peers. Otherwise you could frustrate or annoy others on the team. Try to determine whether your gut feeling is right or wrong on the basis of anonymized work results (in some

orchestras applicants play behind a curtain) or objectively measurable parameters (turnover, customer satisfaction, completion rate and so on). This will allow you to react more consciously and, if necessary, get a grip on your brain.

- You would like to improve the fitness level in your company. Take advantage of human curiosity – researchers enticed ten percent more people to climb stairs by providing answers to quiz questions on every level of the staircase.³⁰ Just make sure you change the questions every day.

At home

- One of your children, by objective standards, does not look particularly attractive. Of course, you still love them, but you are worried that their appearance could affect their prospects. Good news: In addition to 'static' (physical) attractiveness, 'dynamic' attractiveness also plays a role. Characteristics such as openness (extraversion), frequent smiles and social skills contribute greatly to the overall impression someone makes.³¹ In fact, people perceive smiling faces of less attractive people as even more attractive than pretty faces that do not smile.³² Tasteful, appropriate clothes and being well-groomed also support a positive image.³³ Help your child to develop these skills and habits so that the lack of physical attractiveness becomes less of an issue.
- You are irritated because the family always leaves crumbs on the breakfast table. Try a squeeze of detergent in the room while setting the table. Statistically, this olfactory impetus increases the likelihood that your family will mop up the crumbs.³⁴ It is no coincidence that smelling is part of system 1 thinking. Just make sure they do not simply sweep the crumbs onto the floor!

For yourself

- Your partner offers to buy you a picture of your choice. Should you spend time pondering the choice at length, or take the picture you like best straight away? Without trying to analyze why you prefer the romantic starry sky to the cubist dog's head next to it. Should you trust your gut feelings? The research says 'yes!'.³⁵ But why is this? When people try to rationalize why they like or do

not like something they tend to seize on the first *plausible* reasons that come to mind. Since the automatic emotional attraction (system 1 thinking) is so difficult to articulate or explain, people often choose the picture that they find easier to defend rationally after they have analyzed the situation (system 2 thinking). But what tends to happen is that the initial satisfaction, based on clear rational reasons for the choice, is followed a few weeks later by regret at not choosing the object they preferred at first glance. People who stick with their gut reaction tend to remain happy with their choice.

- You feel that your fear reactions are growing stronger and ask yourself why. Look at whether you are feeling stressed, because if you are, this will make it harder to cope with irrational fears. Often people continue to react subconsciously to things that are long past.³⁶ To put it in very tangible terms, the wound on your hand has healed, but you always flinch when you scrape your hand against something. Or, after many sad phone calls related to a death, the ringing tone of your mobile phone still makes your heart race, despite the fact that you have made dozens of 'normal' phone calls in the meantime.

Once you are aware of these almost instinctive reactions, you can begin to consciously reduce your negative stress level (see also Karats 3 and 5). You will soon stop panicking when the phone rings.

Five questions for reflection

1. Observe when you are 'instinct-driven'. Are you over-eating under stress, judging others? When should you turn on your rationality instead?
2. Where and when have you ever deliberately enhanced your attractiveness? What did it achieve for you?
3. What personal decisions do you make on a purely gut-driven basis?
4. What situations in your life are subject to 'laws of nature'? In which of them can you rely on your gut feeling due to well-founded experience?
5. In which situation has your gut feeling been wrong? Did you follow it again the next time round? Was that sensible?