

Feed Your Mind

Understanding what motivates us to eat and exercise helps us to persuade people to use preventative behaviour for a healthier and happier society

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We make tens of thousands of decisions every day, most being rather simple. However, these simple decisions accumulate and shape our lives...and our health. So what motivates us to make these conscious and subconscious decisions? And is there any way in which we can be persuaded to opt for one behaviour over another?

Biologically we are wired to maximise caloric input and minimise energy expenditure.

Hunger is the alarm bell for our homeostatic control mechanism for sugar needs; hunger is punishment for not eating. Traditionally, homeostatic drive and negative feedback systems were considered to control motivation, i.e. the maintenance of a stable internal system by adjusting the real physiological state to a built-in value. Satiety through eating gives us an immediate dopamine reward rush, especially with high-calorie foods like fat and sugar. Hunger motivates us to eat, but also eat too much to provide energy stores for the future. Eating appears to be an automatic behaviour.

As cavemen, moving was, well, just part of life. Without it, there was no food or resources to survive. Our bodies respond well to physical activity: we are happier, have more neurogenesis, faster learning abilities and higher self-confidence. All these attributes happen after long-term regular exercise. In the short run, exercise is a painful and tiresome affair.

Weight does not seem to play by the rules of homeostasis – we do not have a “set point” weight, which our body strives to maintain. Sea level has been so stable for centuries that the term ‘sea level’ has a definite meaning for altitude i.e. 8850m below the peak of Mount Everest. But this could change. No one fills up the ocean when it gets too low, but it is stable because of a settled balance between evaporation, raining and polar freezing. Like sea level, body weight is the sum total balance of a number of interlinked processes.

Food, drink and technology companies are tapping into this automatic behaviour, environment in which we are totally sedentary and eat as much as possible. The world we live in increasingly accommodates our biological wiring, with more and more cars, less and less walking and most of our day-to-day transactions being done online in front of a screen, even our entertainment is becoming increasingly more “screen-based”. Food is easy to access and cheap, especially when high in fat and sugar and with low veggie content. Junk food is spreading like a plague and is being pushed into becoming part of our diets. Our environment is changing to one we are not adapted to, turning our world into some sort of grotesque experiment.

Advertisements play on the nutritional ignorance of the population or use misleading messages to persuade us to satisfy our biological homeostatic drives. As a global population we are simply unaware or misinformed about what we are eating and how much physical activity we need to do. But, experts in physical activity and nutrition are not exempt of sedentarism and unhealthy eating habits, that knowing

the facts is not always enough to get people off the sofa and eating a balanced diet. People continue to gain weight despite actively trying to lose weight. If eating is an automatic behaviour that humans are incapable of self-regulating, continuing to educate the population to eat healthily and exercise will continue to fail.

Human motivation is more complex than a simple drive to survive. Our learned expectation of hedonic reward magnifies the hedonic impact of the actual reward of the drive-motivated behaviour. Because the world around us is tapping into our short-term desires, we are increasingly satisfying our instant reward cravings, which damaging in the long term. Becoming accustomed to high fat high sugar high salt diets makes healthier diets less rewarding in the shorter term. Our enthusiasm also depends on our needs. People give higher subjective ratings of pleasure to the taste of sugar when they are hungry than when they have already eaten – alliesthesia. If our bodies become used to consuming amount of calories, homeostatic mechanisms kick in faster and more frequently and we crave these reward rushes from high calorie snacks. If we are not used to doing exercise we will not the dopamine reward rush following exercise.

There seems to be a split between “wanting” and “liking”. Drug addicts are prime candidates for ‘wanters’ who are not ‘liking’ – think smokers. But also think obesity. Electrical stimulation of the lateral hypothalamus in rats, triggers eating but not hunger, they ‘want’ to eat despite ‘disliking’ the taste. Mutant mice with overactive dopamine receptors ‘want’ excessive food, while ‘liking’ it less than normal food. As automatic eaters being bombarded with food we are cornered into wanting without liking eating. The plasticity of the brain means that it adapts to the circumstances and the liking part may modify to the new wants i.e. more eating!

Genetic vulnerability and exposure lead to addiction. Addiction is a chemical dependence that occurs because of neurochemical dysregulation of the mesolimbic dopamine system. The crossover between addictions to exercise, sedentarism, eating and not eating also motivate our behavioural patters.

The tens of thousands of little decisions we make in a day shape our lives. Building up healthy habits, especially at a young age, is key. In a world of endless resources we have to consciously work against our natural mechanisms that are built to maintain a reliably constant blood sugar level in sacrifice for long-term health. By modifying our short-term decisions and succumbing to instant reward instead the long-term satisfaction gained through healthier eating habits and regular exercise, we become healthier and happier individuals.

The Nudge Unit, a UK government department applies academic research of behaviour into policy making to try and ‘manipulate’ the population into making ‘better’ choices. The idea is to improve decision-making about wealth, health and happiness without limiting choice or changing incentives. Debates surround the ethical nature of ‘nudging’ and if this is within the responsibility of the government. Manipulating has negative connotations, but maybe it is the lesser of two evils to be manipulated by governments acting in health interests rather than commercial advertising.

REFERENCES

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