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ENDING OUR CONSUMER ADDICTION

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"We've become a nation measuring out our lives in shopping bags and nursing our psychic ills through retail therapy" Chicago Tribune of Christmas Eve 1986

Introduction

Do we have a problem with excessive consumption today? Yes; the growing rates of per capita consumption are linked to rapidly increasing greenhouse gas emissions, pollution and waste. Has it become an addiction? Yes; in some parts of the world. Do we know how to tackle the issue? That is what we will explore in this lecture.

Degrowth - Social and cultural values

Ideas about how to downscale production and consumption re-emerged with the publication of *Limits to Growth* by the Club of Rome in the 1970s and developed into the underpinnings of sustainability. Concepts such as degrowth, launched in Paris in 2008 at the first International Degrowth Conference in Paris, followed on. Today, sustainable degrowth has come to mean decreasing production and consumption in a way that increases human well-being and enhances ecological conditions and equity - Tim Jackson has articulated what this implies in his excellent book *Prosperity Without Growth*.

Inevitably the idea of degrowth challenges many of today's social and cultural values. For example, it affects the relative importance that people place on the changes they experience in their lives to do with beliefs about the means of living - honesty, hard work, playing the system, and the ends of living such as health, status, power, influence, peace and so forth. It also goes to the core principles and ideals of cultural values upon which entire communities exist; their customs, values, beliefs such as wealth, success, power and prestige.

Understanding the structure of social values, such as consumerism, goes back more than half a century to the work of Alexis de Toqueville, whose views on political and social life in America were captured in *Democracy in America* – work that some might say is the equivalent to Adams Smith's *The Wealth of Nations* in economics. Many researchers followed after de Toqueville; Veblen's work on the *Theory of the Leisure Class*, and the subsequently academic research by Maslow, Riesman, Bell, Rokeach and Thurstone. They all helped to measure social values and explore the dynamics between them. Maslow saw a structure and evolution associated with physical survival at the base level to those associated with self-realisation such as the intellectual and moral levels of motivation. Rokeach, a psychologist, formulated social values into terms with properties: beliefs; these included conceptions of the means of living i.e. preferences and prescriptions about desirable modes of conduct, and ends of living i.e. end-states of existence and social ideals.

Such formative, fundamental beliefs are thought to be established during adolescence and early adulthood and informed by an individual's prevalent perceptions from close kinship groups and family, by exposure to the main socio-environment and influences of the times. They can serve, quite pragmatically as a way for an individual and society to adapt to and justify personal and cultural practices. Some researchers call this motivated cognition – these are beliefs that determine and reflect an individual and society's responses to the world to survive, connect with kinship groups and create social hierarchies. The term 'values' has broadened out to include the motivations behind human behaviour and the conscious and unconscious feelings behind them.



Into this world of values come different aspects, such as assumptions, perceptions, attitudes, judgements and opinions, intentions and actions. Values contain a multiplicity of elements which translate into an individual's worldview. These can change and evolve through a lifetime, in response to for example biological changes in the body, life's challenges and experiences, such as living with a disease, going through a trauma or facing poverty. Today's values reflect the move from authoritarian and inflexible institutions to flux and heterogeneity. Researchers in the field have provided us with quantitative and qualitative approaches and answers that are used to anticipate many aspects of our lives – from polling, to gender equity, and increasingly our addiction to buying “stuff” and retail therapy.

Finding solutions to the overexploitation of resources and the impacts that this is having on the climate, will inevitably force us to examine the social and cultural values associated with our current patterns of production and our global addiction to consumption.

Sustainable Development - Doing more with less

Four years after the financial crisis in 2008, Heads of State and representatives met in Rio de Janeiro to agree on the future of the world. The major economies were recovering and confidence in global markets was returning. The document they signed, called *The Future we Want*, contained a common vision and renewed commitment to sustainable development. It repeated much of what had been agreed twenty years earlier in *Agenda 21* underlining that unsustainable patterns of consumption and production were the major cause of environmental deterioration. It called for “fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development”.

So, what does sustainable consumption and production entail, what does it mean for citizens, and has the world made progress towards achieving it?

Sustainable consumption and production is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all. The implementation of Sustainable Consumption and Production as an integrated policy approach is designed to help reduce inefficient production, improve recycling and reuse of products, thereby engendering the idea of doing more with less and achieve overall development plans, by reducing future economic, environmental and social costs, strengthening economic competitiveness and reducing poverty.

It does this by focussing on decoupling economic growth and environmental degradation by increasing the efficiency of resource use in the production, distribution, and use of products, keeping the energy, material and pollution intensity of all production and consumption functions within the carrying capacities of natural ecosystems (Figure 1). A major thread that connects all the parts is “life-cycle thinking”. The idea is refer to the whole life cycle of goods and services as they are designed, produced and delivered, to accelerate the transition to an eco-efficient economy and thereby increase net welfare gains from economic activities by reducing resource use, degradation and pollution while increasing quality of life. That is the theory. But has it been working? The answer is to a limited extent, as we shall see from the next section on global trends.



Figure 1. ABC of SCP clarifying concepts on sustainable consumption and production (UNEP 2010)

Global Patterns of Consumption and Production

Along with many other measures of human activity, consumption patterns have shown an increasing exponential growth over the past decades (Figure 2a). In particular, the period after the 1950s has become known as ‘the Great Acceleration’ during which the global human population has tripled, the number of people living in cities more than quadrupled, economic output in terms of gross domestic product (GDP) expanded 12-fold between 1950 and 2016, fertiliser consumption of nitrogen, phosphate and potassium increased 12-fold and primary energy use increased by almost a factor of five.

The increased welfare and prosperity has delivered enormous improvements in living standards and well-being. For hundreds of millions of people in both the developed and developing world. The percentage of the world’s population living in extreme poverty has dropped from 42% in 1981 to 10% in 2013 and with it many other health and poverty related problems. It has also created new industries such as international tourism which is one of the largest and fastest growing economic sectors globally with a total of 1.18 billion international tourism arrivals in 2015. This growth has also led to unprecedented pressures on the environment, ranging from increases in greenhouse gas emissions, ocean acidification to loss of forests and biodiversity and taken us into a new geological period known as the Anthropocene (Figure 2b).

One of the most critical outcome metrics of all these increasing trends is the emissions of greenhouse gases. In the 2019 Emissions Gap Report, the annual update of where we are in terms of emissions and global development, it has been calculated that we have to reduce emissions by 32 GtCO₂e per year down to net carbon negative by mid-century if we are to stay within safe limits. What this means is that we will need to put in place radical decarbonising processes across all our economic activities. This will take unprecedented efforts to transform our societies, economies, infrastructures and institutions. Without deep transformations, we will lose the opportunity for climate protection and adaptation and almost certainly peace and stability. The types of change needed will affect all of us, through every economic sector, firm, labour market and trading arrangement; most of all it will affect patterns of consumption and production in energy, food, clothing, transportation, construction and other material-intensive services.

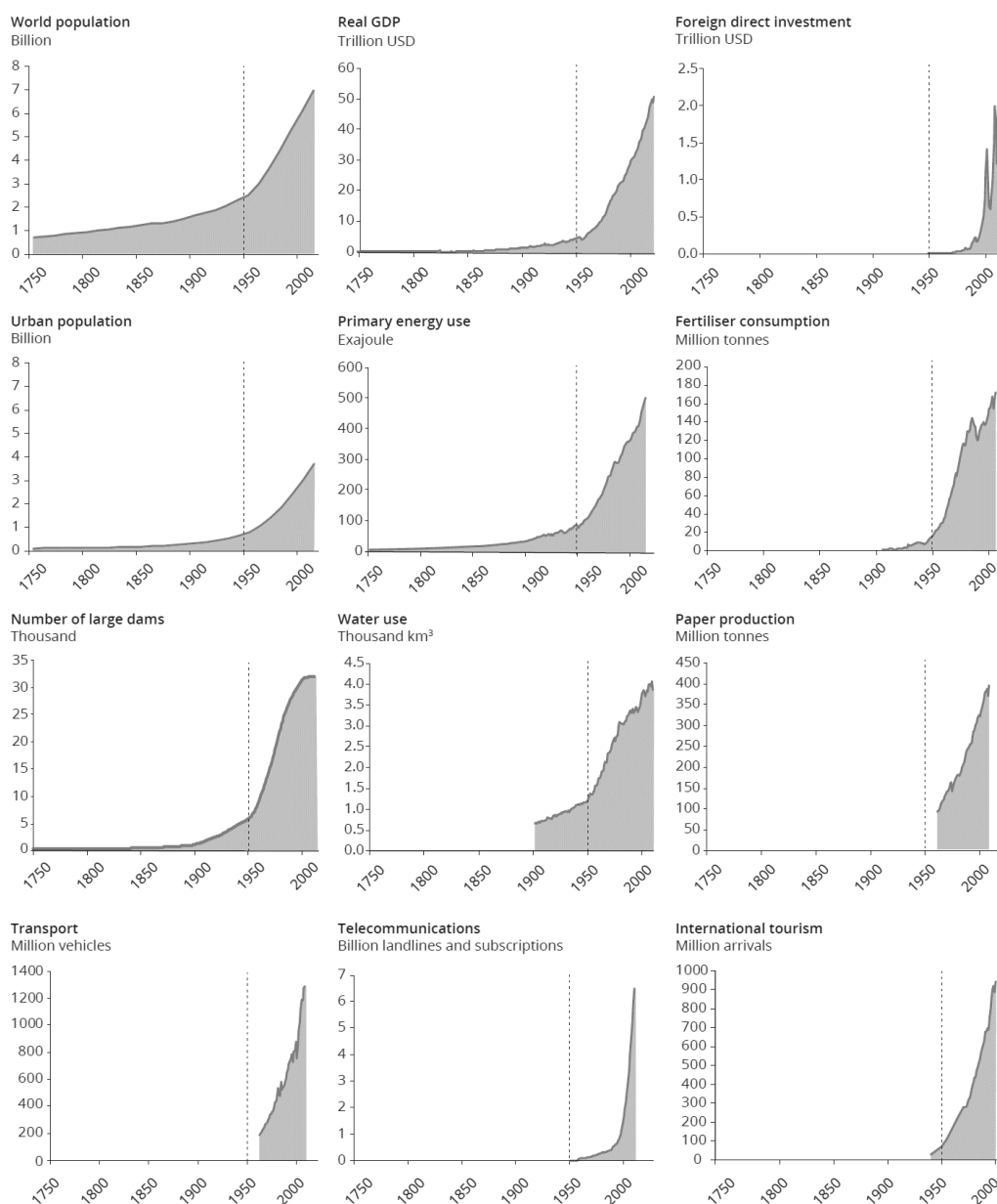


Figure 2a: Trends in major human processes over the past 250 years. Source European Environment Agency 2019 State and Outlooks of the Environment 2020.

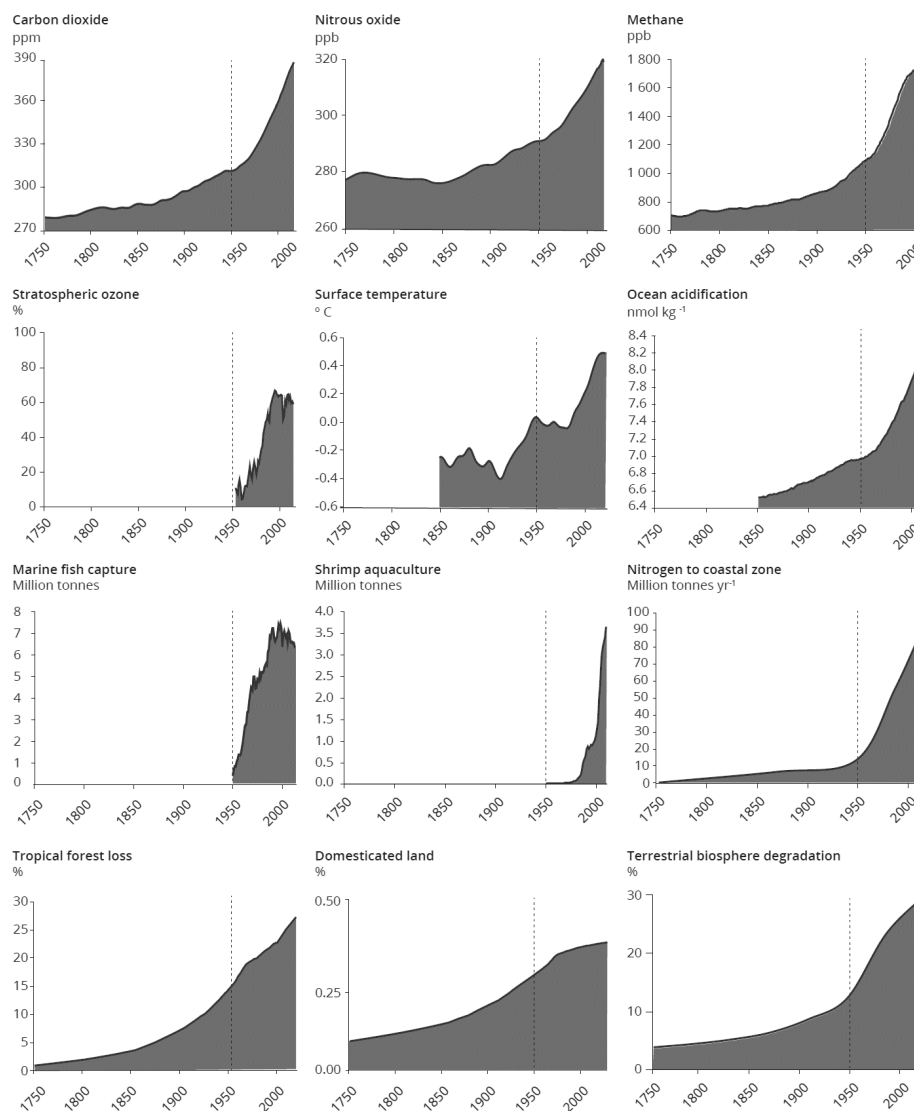


Figure 2b: Trends in planetary human processes over the past 250 years. Source European Environment Agency 2019 State and Outlooks of the Environment 2020.

Today's systems of provision of services are entwined with the preferences, actions and demands of people as individual consumers, citizens and communities. Deep-rooted shifts in values, norms, consumer culture and world views will be inescapably part of the great sustainability transformation needed. To avoid inequality and injustices growing, decarbonisation will require massive social mobilization and investments in social cohesion to avoid exclusion and resistance to change. Legitimacy will need to be balanced with just and timely transitions towards sustainability, taking into account the interests and rights of people vulnerable to the impacts of climate change, especially where decarbonisation requires structural adjustments, that will affect today's and future generations. In short, many of today's social and cultural values will have to evolve towards more awareness about resources, climate change and the state of our environment.

Governments cannot work alone to achieve such a shift in values. Such a deep-rooted transition will require everyone to take part. Given the desire to leave no one behind as the core of the Sustainable Development Goals, even the poorest will need to make choices on where and how to live that will have an impact on our ability to keep the planet on a safe trajectory. Until now, our use of resources has largely been driven by a supply-side form of thinking. If something is made, someone will buy it. But this will no longer function as a model for the future where we need to look at demand-side material efficiency and changes to consumption patterns.



The major drivers of change are coming from the planet itself, experienced through climate change, from changes in demography and the demand for goods and services (Figure 3). Climate change is on an almost unstoppable trajectory and so our attention will need to turn to demographics and consumption. The accepted view of populations is that growth will take us a global population near to 10 billion during the course of the century. Much of what has been planned is based on this premise. However, in a recent book *Empty Planet: The Shock of Global Population Decline*, Darrell Bricker and John Ibbitson offers a radical, provocative argument that the global population will soon begin a rapid decline, dramatically reshaping the social, political and economic landscape. Based on field work in Florida, Sao Paulo and many other parts of the world, they have come to the realisation that what governments are projecting may not happen at all, and that with declining rates of reproduction, many countries will not be operating even on a replacement basis for the coming generation.

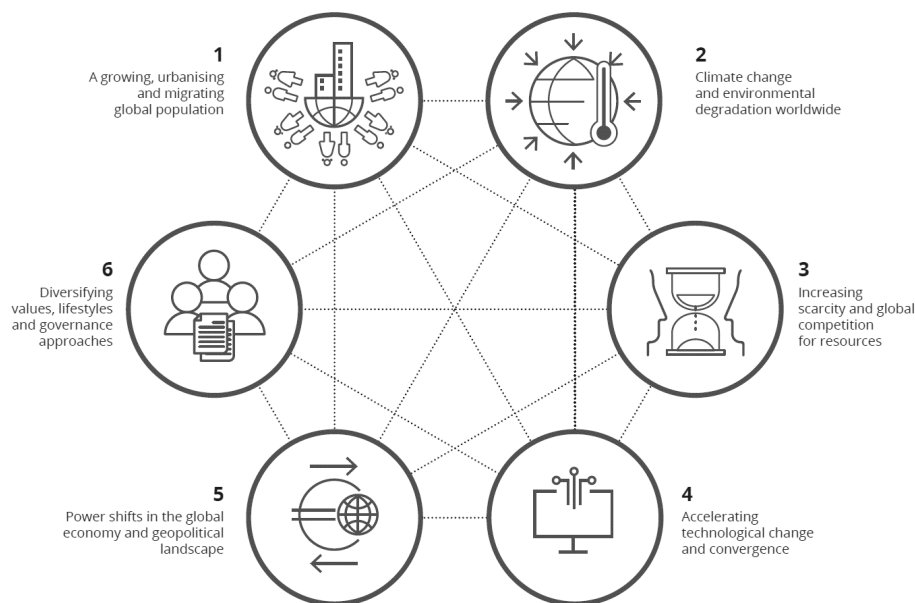


Figure 3: Major clusters of drivers of change. Source European Environment Agency State of the Environment 2020.

What this will mean for life on planet earth needs to be explored, but it will undoubtedly lead to dramatic shifts in consumption patterns and the provision of basic services, as urbanisation, women's empowerment, and waning religiosity lead to smaller and smaller families take hold. A smaller global population could mean less inequality, more innovation, less risk of famine and greater affluence. But already we see that an ageing population can lead to worker shortages, weaken the economy and impose enormous strain on healthcare and social systems. All of this will require people to change behaviours and especially their consumption patterns.

So where are we now? While GDP is mainly an indicator of the level of economic activity, Actual Individual Consumption (AIC) is an alternative indicator better adapted to describe our material welfare and consumption. Generally, in Europe, levels of AIC are more homogeneous than GDP but still there are substantial differences across the EU Member States. (Figure 5).

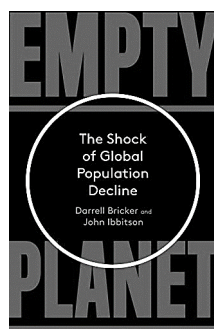
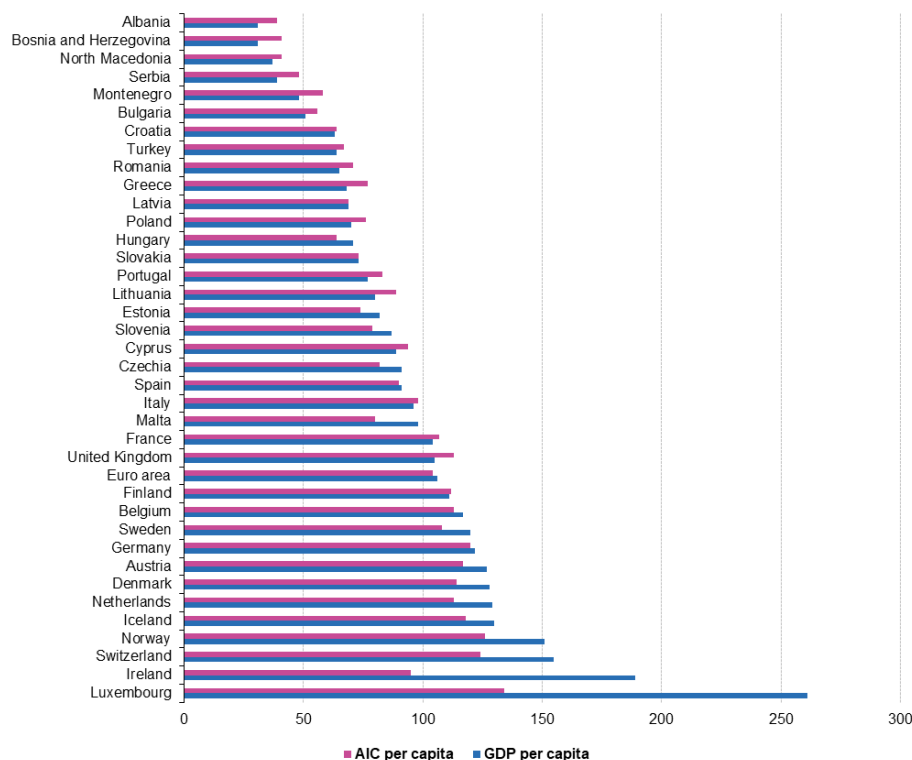


Figure 4: Empty Planet: The Shock of Global Population Decline (2019), by Darrell Bricker and John Ibbitson.



Source: Eurostat (online data code: prc_ppp_ind)

eurostat

Figure 5 Volume indices of GDP and AIC per capita 2018, with EU-28set =100.

Luxembourg has the highest level of AIC per capita among all 37 countries included in this comparison at 34% above the EU-28 average. It is followed by the EFTA countries Norway and Switzerland, with AIC per capita at 26% and 24% above the EU-28 average, respectively. While Luxembourg can be said to belong to "a division of its own" in terms of GDP, this is less so for AIC. One reason for this is that cross-border workers contribute to GDP in Luxembourg while their consumption expenditure is recorded in the national accounts of the country of their residence. Ireland, having the second highest level of GDP per capita in the EU-28, has an AIC per capita at 5% below the EU-28 average.

Another measure used in assessing consumption patterns are the Purchasing Power Parities, which in their simplest form are the ratio of the prices in national currencies for the same good or service in different countries. For example, if the price of a hamburger in France is 2.84 euro and in the United Kingdom it is 2.20 pound sterling, the PPP for hamburgers between France and the United Kingdom is 1.29 euro to the pound. In other words, for every pound spent on hamburgers in the United Kingdom, 1.29 euro would have to be spent in France in order to obtain the same quantity and quality – or volume – of hamburgers. When taken in conjunction with exchange rates, it is possible to derive comparative prices for each country.

This is important because as we shall see, one of the behavioural triggers in consumption addiction is price.

Consumer Addictions – Food and Fashion

Are we addicted to consumption? Looking at the global upward trends in food, clothing, electronic goods, cars and leisure activities, it would seem that the answer is unequivocally yes. But there are many factors affecting this upward growth. To explore these, we will look at two categories associated with high greenhouse gas emissions and that affect us all – food and clothing – so that we might get greater insights as to why we consume in the way we do.

Food Consumption Patterns – Choices, Losses, and Waste



All around the world people are making choices everyday as to what they eat; these choices can make an enormous difference to the overall level of greenhouse gas emissions and hence global warming. More recently the consumption of meat has been vexing consumers, farmers, and retailers. The impacts of meat production on greenhouse gas emissions, the relative merits of switching to plant-based diets, using more crops such as soya beans and the effect of that this will have on land use, health concerns and animal welfare are all part of the conversation: it has become a very complex set of issues.

Meat consumption has been changing quite considerably over the past 50 years. Meat production is now 5 times higher than in the early 1960s, growing from 70m to 330mt per year. (FAO 2017) (Figure 6).

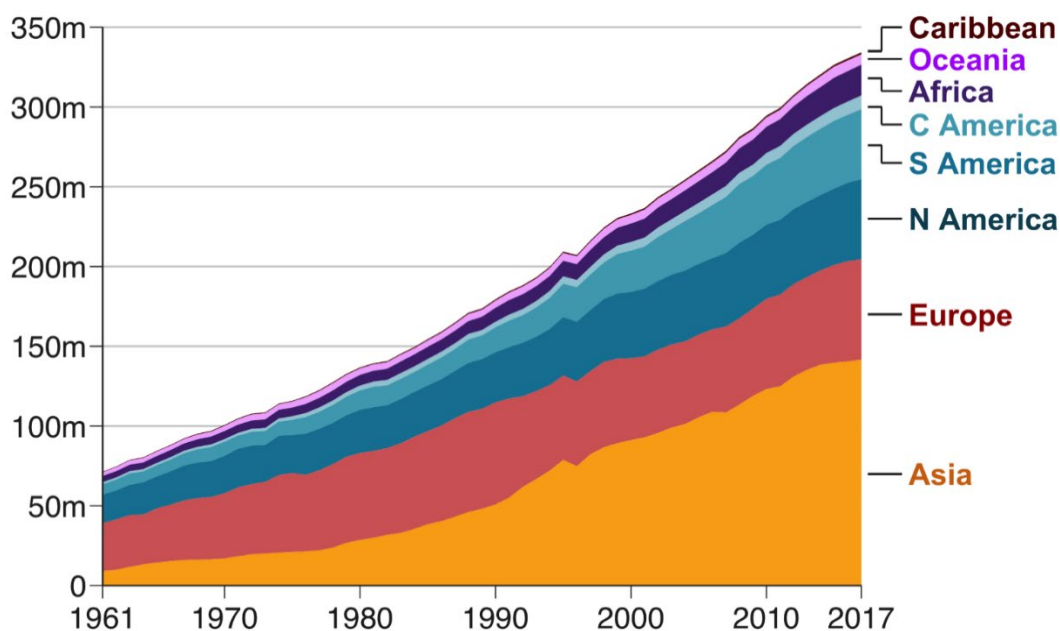


Figure 6. Meat Production by region. Source FAO (2019)

There are different levels of meat consumption worldwide (Figure 7) and trends in what makes up the weight of meat consumed. In the USA, the average consumption of meat grew from 20kg in 1960 to 43 kg in 2014, partly due to the availability of supplies of red meat, poultry and seafood. The proportions also changed; for example, in the 1970s poultry represented 25% of meat consumption; by 2014 the proportions were red meat 51%, poultry 42% and seafood 7%. In Europe per capita consumption is 80-90 kg of meat per person per year compared to Ethiopia at 7kg, Rwanda 8 kg, Nigeria 9kg... amongst the Maasai I have calculated it to be around 3kg.

In the UK, a recent survey by a vegetarian association has documented the shift towards eating less or no meat and estimated that the change has generated 6.7b GBP of savings to the consumer. One third of people surveyed said they had moved to a plant-based diet instead of meat; and two thirds claim to be eating less meat. One major supermarket has stated that flexitarianism is now the major diet that they are catering for. The question is whether consumers are making the shift because of price and/or because of social/environmental/health?

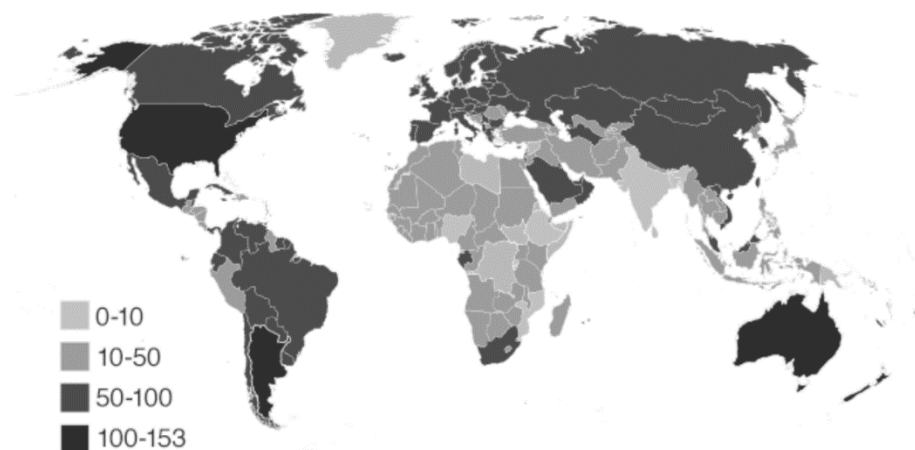


Figure 7. Meat consumption per person (kg). Source FAO 2019

The impacts of food consumption and production on the environment are considerable: overexploitation of water, loss of soil productivity, overuse of fertilizers and pesticides are key problems. But another key issue is the amount of post-harvest food losses and waste associated with different commodities around the world (Figure 8a/b). If we are looking to shift towards a society where resource efficiency is highly valued, these types of losses will be very important.

Losses can arise from inadequate harvesting time, climatic conditions, poor harvesting practices and transportation; food waste occurs due to shelf-life, aesthetic standards, poor purchasing choices and meal planning, excess buying influenced by packaging and confusion over labels, such as best before and use by dates, poor in home storage. It is generally agreed that food losses are those that occur throughout the food supply chain from harvesting/slaughter/catch up to the retail level and that food waste occurs at the retail and consumption levels. Food diverted to animal feed and inedible parts are not included in food loss. However, measuring losses is surprisingly complex; there are no common definitions and multiple pinch points, thus making tracking progress on Sustainable Development Goal 12.3, where the commitment is to halve per capita food waste at the retail and consumer levels and post-harvest supply chains by 2030, very difficult.

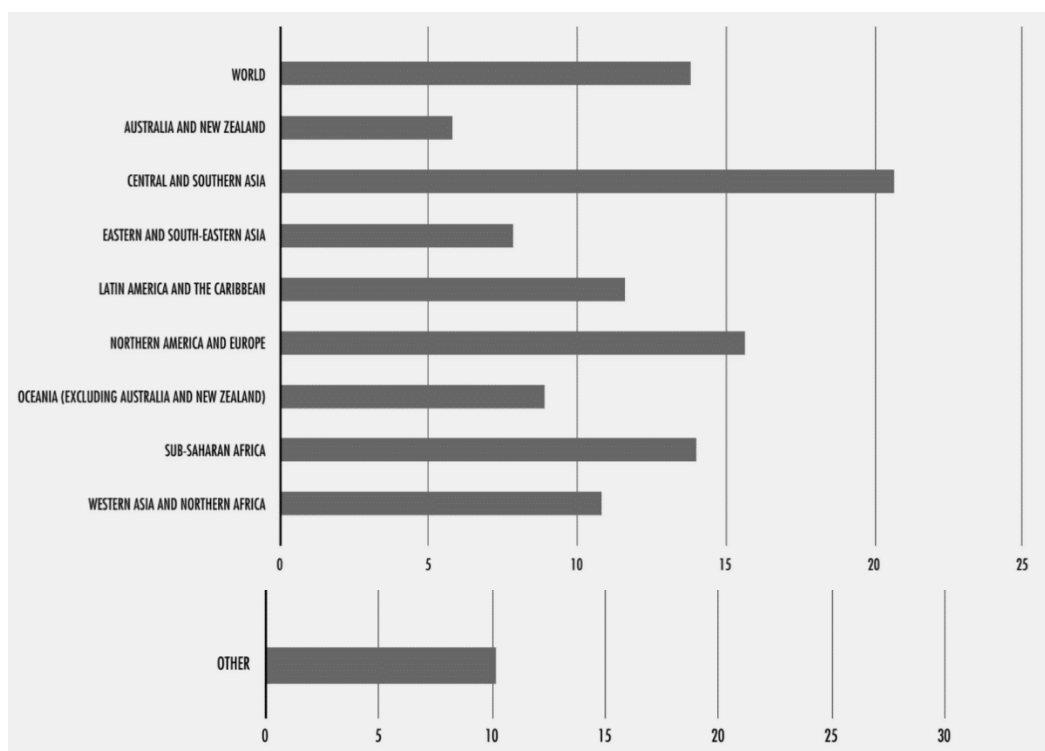




Figure 8a. Food loss from post-harvest to distribution in 2016, percentages globally and by region; 8b. Food loss from post-harvest to distribution in 2016, percentages by commodity groups Source: FAO State of Food and Agriculture 2019

The linkages between food loss and waste and food security and environment are complex and can both incentivise and disincentivise farmers and consumers. Sometimes there can be positives outcomes from a reduction in food loss and waste, but these are not guaranteed, and the impacts depend on where these occur. For example, reduction may cause a drop in demand for smallholder farms, whereas in regions where food insecurity is not a problem, reductions in food waste could help vulnerable people through food collection and redistribution. Finding these critical points in the supply and retail chains is now part of an activity by FAO and others based on a framework for developing a Food Loss Index and a Food Waste Index (Figure 9a/b).

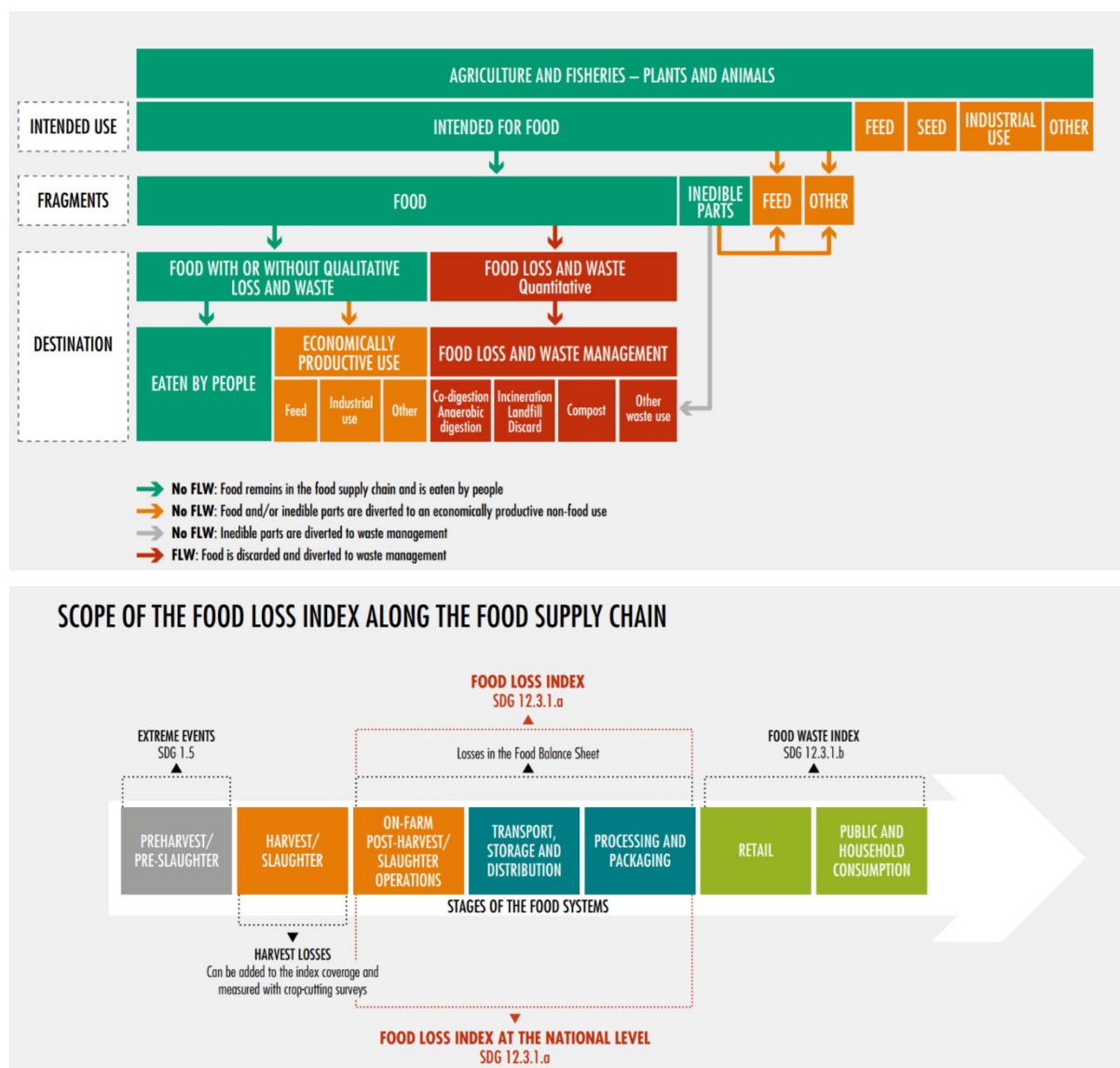


Figure 9a. A conceptual framework for food loss and waste. “Industrial use” includes biofuels, fibres for packaging material, creating bioplastics (e.g. polylactic acid), making traditional materials such as leather or feathers (e.g. for pillows) and rendering fat, oil or grease into a raw material to make soaps, biodiesel or cosmetics. It does not include anaerobic digestion, as the latter is intended to manage waste. “Other” includes uses such as fertilizer and ground cover. The length of the bars is not representative of the total volume or value of the products concerned. 9b Food Loss Index along the supply chain. Source: FAO State of Food and Agriculture 2019



Clearly one of the most effective ways to address the issue of the impacts that food production and consumption are having on the environment and food security is through tackling food losses and food waste both post-harvest and in terms of consumption. Around the world retailers and public authorities are bringing “ugly” or “wonky” foods, that would otherwise be discarded, into the marketplace; the World Food Programme is using these to feed thousands of children in sub-Saharan Africa. The social and cultural value that so many consumers in high income countries place on perfectly shaped produce is perhaps one of the earliest shifts in that we could expect to see in tackling our consumer addictions in the coming year!

Fashion – Changing Behaviours and Addictions Through Labelling

Another way of addressing consumer addiction is by getting a better understanding of how we respond to brands and image. This is especially true for apparel and cars. For many years, the fashion industry has recognised that it is responsible for a significant ecological footprint. Many in the fashion world are taking steps towards addressing the consequences of different choices by creating different types of products that tell the consumer about the source or new types of material, and then promoting these through advertising and social media. These different types are trending with the multiple labels, conveying different sourcing and product types, with growing in success. So, for example, we see the promotion of clothes swaps, slow fashion, second-hand fashion, fair and vegan fashion (Figure 10). Why this is important is that it creates choices with an environmental, life-cycle rationale behind them.

LOCAL	LOCAL PRODUCTION Minimize your carbon footprint! Garment transport puts out a huge amount of CO ₂ , which can be reduced by minimizing the distances during production. If you want to have a positive impact on working conditions in developing countries, you can't do that from a distance. NOTE: A tag that says 'made in Germany' does not necessarily mean that the entire garment was made in Germany. If you're unsure - just ASK. Brands that are sustainable are generally expressive about their production methods.
MINIMALISM	MINIMALISM Having as little as possible = less consumption. If you are someone who likes to change styles and experiment around with new outfits you might get bored of this, leading to that yoyo-effect, only with clothes. NOTE: Do it right: just discarding whatever you don't essentially need will not lead to a more sustainable closet. Consider keeping that second pair of sneakers and wearing them out. This buys you twice as much time until you will need a new pair.
ORGANIC COTTON	ORGANIC COTTON Saves us from pesticides. Is better for the health and land of the farmers, and also protects wildlife. Even organic cotton needs huge amounts of water to be produced. Can be misleading as most organic cotton is dyed and treated with toxic chemicals. NOTE: Organic is <i>always</i> better, however fabrics like tencel, lenzing, and hemp offer comparable
SWAP	CLOTHING SWAP Organize and start off with great(!) and probably the most sustainable solution because you are not only giving the pieces you get a new life, but also the ones you give away = double the save from landfill. Takes time to organize, but check Facebook and apps or groups
SLOW	SLOW FASHION Environmentally friendly by producing fewer new items. Quality is key here, take the time to really think about if the pieces suit your style and you can see yourself wearing them for a long time. It's best to start with basics. When something breaks, check to see how you can get it repaired before you toss it.
SECOND HAND	SECOND HAND Another super sustainable solution because the pieces already exist, so you are saving the entire negative impact of production. Buying second hand can give unconscious consumers who sell their clothes less incentive to think about their purchases, which fuels more fast fashion consumption.



Figure 10 Different fashion choices available today.

How Can We Reduce Consumer Addiction?

Consumer addiction is very real and can produce a financial death spiral, if we let it. Consumer addiction is best seen as compulsive buying disorder where shopping has become a form of dysphoria, an addiction or the psychological disorder, sometimes known as oniomania. Earlier studies have shown that a third of shoppers had a high level of addiction to rash purchases and unnecessary consumption. This addiction was causing debt and other social problems.

A study of American adults indicated that shopping or retail addiction was higher among women 64% who tended to purchase clothing, than in men (40%) who tend to purchase food: relief from anxiety was cited as the most common reason. A study in Europe, found that young Scottish people had the highest propensity for binge shopping. In other studies, in the US, Selin Atalay and Margaret Meloy found that 62 percent of shoppers had purchased something to cheer themselves up and another 28 percent had purchased as a form of celebration.

But are these manifestations of consumer addiction the same as an addiction to tobacco or opiates? Is there any evidence of a biological basis to consumer addiction or is it entirely external? Should it be reduced and if so why? Retail therapy, perhaps the precursor to a form of consumer addiction has several dimensions. When people think of the benefits of “retail therapy,” escape, entertainment, and rejuvenation are usually at the top of the list. It can ease transitions, such as divorce and pregnancy, and be a rich source of mental preparation for example through visualizing what something will look like; and inspire confidence. In a study published by the *Journal of Experimental Social Psychology*, participants were asked to wear white coats that they were told were doctor’s coats. When wearing these coats, students were far more accurate on a test of attentional focus and concentration (traits associated with physicians) than the control group who simply wore their street clothes for the experiment. Shopping can enrich people’s lives and purchases once made can become beloved items. Consumerism is a form of social connection with likeminded lovers of a particular brand.

Online shopping is increasingly mentioned as a type of mini-mental vacation. This makes sense as can be a relatively mindless, relaxing activity. Be it window shopping, online scrolling, or pawing through racks at outlet malls, shopping really can be a mental refresher —like a short vacation without any packing or planning.

Dopamine is the predominant neurotransmitter that works in any addiction. It is the same for consumer addiction. Interestingly, animal models have shown that more dopamine is released in anticipation of a reward than when the reward is actually received. Along the same lines, purchasing products online that we know will arrive in a couple of days also produces a higher dopamine surge than buying it in the store where you receive it immediately. Getting that hit of dopamine is the reason many of us often purchase products. Unfortunately, the dopamine rush is short lived. This is the reason we need to replace new cars as often as we replace new phones, new clothes etc.



In moderation, shopping is therapeutic. But for some, “retail therapy” can become an addiction. Consumer addiction often arises in people with occupations where there is an extremely high rate of stress and moral injury. Consumption can make the person feel better even if only fleetingly. This leads to repetitive spending habits in search of that ever-elusive happiness. High income earners can also become consumer addicts as they can afford to make mistakes in purchases. Often people in these types of jobs have a picture of what they should have and look like. The road to high levels of stress in these individuals is now seen to be linked to consumer addiction; ultimately it can become linked to high levels of debt.

Can We Avoid Consumer Addiction?

Consumer addiction is different from other types of addiction because our social and cultural values mean that we are immersed in it. The person with the consumer addiction cannot simply “stop” and probably doesn’t even realize that he or she has an addiction. Consumer addiction can manifest itself in a number of ways: hoarding, shopping addiction, an overwhelming need to always be “in-style” and “on-trend” (including the latest and greatest electronics upgrades as they happen), or even simply a sense of being “empty” if you haven’t purchased something in a certain amount of time. However, at its most simple base, consumer addiction is an inability to separate yourself from identifying your personhood and your value based on the “stuff” that you own. Consumer addiction is when a person is, quite simply, addicted to having to acquire “stuff” just for the sake of acquiring things.

The bigger question is how does a person avoid addictive consumerism? On a mass scale, society is teaching people to define themselves by what they own and what they buy from the time they are a very small child. As children go to school, they are compared to other children based on what they “have” and “don’t have.” This can mean toys, clothes and, these days, even electronics. The problem only worsens as we age and begin comparing bigger cars, bigger houses, bigger weddings and bigger storage facilities. Then, in a perpetuating cycle, we have children and the process begins again.

The media is also critical in developing consumer addicts. Today advertising can be overwhelming and when advertising began to truly saturate our brains, people began spending the majority of their day constantly seeing advertisements. It would be over simplistic to say that the media cause consumer addiction, but they fill gaps.

Financially, addictive consumerism feeds the machine that has created it and it is largely what led to the global credit crisis, and, on micro levels, can keep individuals “poor” and without savings for their entire life. The overall addictive consumerism phenomenon not only means that we are creating more “stuff,” it also means that we are now discarding “stuff” into landfills at an unprecedented rate. For most consumers, the items that they purchase were not made using environmentally friendly standards and are very likely to create problems further downstream.

Knowing who you are is seminal. In the Whitehall Study, Sir Michael Marmot showed that even small differences of pay and reward amongst civil servants was sufficient to create negative behaviours amongst groups with largely similar pay. In a subsequent book *Who do you think you are?*, he showed that high earning individuals are often very lonely with poor social networks and are likely to have a shorter life expectancy than those who have far less but who are embedded in strong social networks. Perhaps one of the reasons why consumer addictions take over is that individuals have become imbued with anomie, totally disconnected from nature, the cycle of life, communities, families and, ultimately, themselves.

Addiction is a pattern of continually seeking more of what it is that the person doesn’t really want and, therefore, never being fully satisfied. And as long as the person is never satisfied, they will continue to seek more and more. Addiction in one form or another characterizes every aspect of industrial society according to social philosopher Morris Berman, and dependence on substances or corporeal pleasures is no different from dependence on “prestige, career achievement, world influence, wealth, the need to build more ingenious bombs or the need to exercise control over everything.”

At the very least, this certainly raises questions about the dominant, socially accepted view of addiction, the disempowering, less-than-hospitable “disease model,” which claims addiction is a chronic illness predetermined



by genetics. The “disease-model” is characterized by a loss of control over substances or practices, along with denial of the severity and consequences of using or engaging in them.

Current research shows that genetics are the most significant factor in addiction. A person is four times more likely to become dependent on alcohol or drugs when there is a genetic history of the same. This may be true, but the pervasive pattern of addictive behaviour that finds its way into our economics, our politics, and our interpersonal relationships cannot be just explained away using genetic predetermines. Consumption without need is the hallmark of addiction, and consumerism is defined as “the equating of personal happiness with the purchasing of material possessions and consumption.”

The pattern of out-of-control consumption in the United States, which per capita consumes 70 times more than India, with three times the U.S. population, is not qualitatively different from the well-known patterns of behaviour of substance abusers.

Most professionals will agree that the purpose or function of an addiction is to put a buffer between ourselves and the experience or awareness of our emotions. An addiction serves to numb us so that we are out of touch with what we know and what we feel. Eventually this numb buffer zone becomes a habituated coping mechanism. But addiction itself “is not innate to the human species. It is something that we have developed to cope with different predicaments.”

Derrick Jensen and Chellis Glendinning believe that consumer culture drives the “culture of empire,” an inherently abusive system built on resource exploitation and the subjugation of peoples. Because of this, those living in it have undergone a collective wounding or trauma that has left society suffering from a mass form of PTSD. Glendinning writes about our “primary” and “secondary” sources of satisfaction. “Primary” needs are those we were born to have satisfied: nourishment, love, meaning, purpose and spirit. When they are not met, we turn to the “secondary” sources, which include “drugs, violence, sex, material possessions and machines.” Eventually we become obsessed with the secondary sources “as if our lives depended on them.”

Designing and marketing secondary sources of satisfaction falls to the complimenting social, political and economic systems that reinforce addictive behavior in order to drive the consumer machine. Consumption becomes “naturalized” through corporate advertising and marketing, government tax breaks, and officially sanctioned religio-consumer holidays like Christmas, Hanukah and Valentine’s Day. Let us never forget that after 9/11 George Bush told Americans it was their patriotic duty to “spend.”

The social-control-through-indulgence approach was excoriated in Aldous Huxley’s *Brave New World*, a critique of consumerism and the vapidness of a culture based in pleasure seeking. In Huxley’s futuristic dystopia, freethinking and human attachment have either been outlawed or genetically modified out of most of humanity. In its place is a dumbed-down hierarchical society overrun by high-tech entertainment, sexual promiscuity and a powerful, all-purpose intoxicant/narcotic/dissociative drug called Soma, which is used to quell any unpleasant feelings. Perhaps this sounds familiar?

Temporal discounting and neuroconservation

In an unusual experiment participants lifted two vodka bottles from a shelf, one heavier than the other, but both filled with exactly the same amount of vodka. The majority preferred the heavier bottle — perceiving it as stronger, more expensive, of better quality, more elegant and more up-market. Most consumers prefer heavier containers. This is just one insight among many yielded by brand research on how we react to different product features. Cold objects rested on the hand or arm feel heavier than thermally neutral ones, and we also perceive dark objects as heavier. We associate fizziness with pointy objects, so stars are an appropriate brand symbol for sparkling water. Citrus is associated with brighter and sharper music, and vanilla with slow, softer music.

In the past decade, researchers have widened the scope of their investigations to assess the causes of many of these brand and packaging associations. They want to know when exactly principles developed in a particular test



could work elsewhere or extend to other brands so that they can make predictions of consumer choice. Behind any major brand is a busy team of neuroscientists and consumer psychologists assessing how our brains respond to it. That is because consumer self-reporting is not always reliable. But there is one area very few of them will have studied, and that is the power of consumers to stop. Plenty of funds are available to analyse our consumption patterns. Few, however, have studied our inclination to conserve, because nature has no brand manager.

Wallace J. Nichols of the California Academy of Sciences, the convenor of Blue Mind, launched a research initiative merging the fields of cognitive science and ocean exploration. An expert on turtles and a marine enthusiast, Nichols wanted to know how our brain responds to the ocean. What happens when we look at it? Why do people feel better when they see the ocean? Why do they want to live on the coast? Why do surfers suffer withdrawal symptoms when away from the breakers? These are just a few questions he is looking at.

To gather momentum for the campaign and to help develop the new field, dubbed neuroconservation, Nichols is working with neuroscientists and a range of specializations from across the world. It is an embryonic field, which has hardly defined its own terms of reference yet. As Nichols puts it: “Our priorities are skewed, and not much has been done. What I'm trying to do is collect the dots from research on other things surrounding the questions we need to ask that are useful to our subject”. Potential research themes have ranged from the psychological reasons for the limited fish varieties that are eaten in the USA, to the use of surfing to help war veterans recovering from physical and psychological injuries. Many of the scientists gathered together by Nichols are from the field of addiction treatment.

The mechanism that he is investigating is the mind's capacity for temporal discounting (pleasure definitions, and reward and motivation mechanisms are others), the ability to overcome an immediate impulse in exchange for a later, bigger reward. The relevance to neuroconservation is clear. Experience shows that if people can wean themselves off the self-centred activities of alcohol, drug, tobacco or food addiction they are more likely to seek rewards from more wholesome behaviour instead.

Zald, another addiction specialist notes that temporal discounting is an important component in the development and maintenance of drug addiction. Addicts have high temporal discounting, which means they rapidly discount the value of rewards further in the distance. Researchers have identified two competing neural systems related to temporal discounting using brain imaging techniques¹. They find that choices for delayed outcomes are related to the brain's prefrontal cortex (the executive system) whereas those for immediate outcomes are related to the limbic brain regions (that is, the impulsive system).

Animal and human imaging studies have revealed discrete circuits that mediate the three stages of the addiction cycle in the brain. Key elements involved include the ventral tegmental area (a group of neurons in the midbrain) as a focal point for the binge/intoxication stage, the extended amygdala (almond-shaped groups of nuclei in the medial temporal lobes that process memory and emotional reactions) in the withdrawal/negative affect stage and a wide network of various other elements in the preoccupation/anticipation phase. Transition to addiction involves neuroplasticity in all of these structures, eventually leading to dysregulation of various parts of the brain. The prefrontal cortex (the very front of the brain) exerts inhibitory control that allows you to remember the long-term objective and inhibit immediate urges. Drugs reduce that power and promote immediate urges through their action on what is called the reward pathway (Howard Fields, Director of the Wheeler Centre for the Neurobiology of Addiction at the University of California, San Francisco). Identifying the addiction process in the brain has helped to suggest ways to interfere with the addiction (possibly using pharmaceuticals) and test improved prevention and treatment programmes. This is because addiction relapse often occurs after a year, even when cognitive therapy has been used.

According to experts, addicts code and prioritize rewards. In addiction the drug or rewarded activity is 'locked in' as a stronger incentive than other potential rewards. In such a situation it is hard to find rewards that exceed the impact of taking the drug or engaging in the behaviour. The punishment has to be great. Alternatively, the person has to be able to identify a stronger reward, or some combination of reward and penalty, to overcome the compulsion to seek or engage in the addictive behaviour.



The question for consumer addiction is whether temporal discounting can help us predict likely addictive triggers and behaviours. The parallels between holding back on another whisky or switching off a smartphone are clear, but could the research on temporal discounting in alcohol or drug dependency be usefully transposed to consumption?

Public health data sets have already been used as weapons against brands in rows between corporate responsibility campaigners and brand owners about obesity. But after years of disputes, it is evident which party has the power. Medical research provides only a narrow channel for this kind of social question, which has much broader implications. Meanwhile, we need to understand how values and choices are created in individuals minds and lives so that research on how addiction takes over can be rigorously tested.

Asking society to go into a global recovery program, based on treating the symptoms of consumption as if they were an addiction, and addressing the social and cultural values that make us want to continuously buy things rather than live more sufficiently, is something that we can all start to consider. Hopefully is not nearly as mad as it sounds.

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