

Lecture Week Eight – Secrets of Sugar

Introduction: Your Body on Carbs

<https://youtu.be/ZWePU8iMyUc>

1 How is Metabolic Syndrome Discussed in the Media?

Obesity is the new smoking in terms of the impact on health and the cost to the NHS, the head of the NHS in England says.

A quarter of adults - up from 15% 20 years ago - and one in five schoolchildren is obese, figures show. The problem is estimated to already cost the NHS £9bn a year. But NHS England chief executive Simon Stevens said if obesity rates kept rising it could even threaten the sustainability of the health service. Someone with a body mass index (BMI) - a height-weight ratio - of more than 30 is considered to be obese, according to [NHS Choices](#). Speaking to the Public Health England annual conference in Coventry on Wednesday, Mr Stevens said: "Obesity is the new smoking. It represents a slow-motion car crash in terms of avoidable illness and rising health care costs. "If, as a nation, we keep piling on the pounds around the waistline, we'll be piling on the pounds in terms of future taxes needed just to keep the NHS afloat." He said, unchecked, the result of growing obesity rates would be a "huge rise" in disability and illness, such as type two diabetes."

<http://www.bbc.co.uk/news/health-29253071>

"Obesity is now reaching "crisis proportions" according to a new study. The McKinsey Global Institute said it cost £1.3tn, or 2.8% of annual economic activity - it cost the UK £47bn. It suggests that it is about the same as smoking or armed conflict and greater than both alcoholism and climate change. The BBC's Health Editor Hugh Pym reports."

<http://www.bbc.co.uk/news/health-30125440>

"More people are dying in Britain due to being overweight or obese than anywhere else in Europe, a study revealed yesterday. Around one in every 11 deaths in the UK is now linked to carrying excess fat - 50 per cent more than the rate in France. Experts also warned that the number of fatalities due to obesity may soon, for the first time, exceed those caused by smoking. Being overweight or obese leaves people at high risk of heart disease, diabetes, high blood pressure and osteoarthritis. It also makes them much more likely to develop several types of cancer. The growing health disaster is being blamed on the rise of aggressively marketed, fatladen fast food and couchpotato lifestyles.

Around half of British adults are overweight, and 17 per cent of men and 21 per cent of women are obese. The difference between being overweight and obese lies in a person's Body Mass Index, which is calculated from weight and height. An adult with a BMI of more than 25 is classed as overweight and one with a BMI of more than 30 is obese. Britain is the 'fat capital' of Europe, according to researchers from the University of Madrid's School of Medicine whose study is published in the European Journal of Clinical Nutrition. The lowest death rate from being obese and overweight was in France, but the researchers said it was clear that Europe as a whole has a problem."

<http://www.dailymail.co.uk/news/article-171497/Britains-obesity-death-rate.html>

2 Soaring Crisis

More than 100 NHS hospitals in Britain contain fast food outlets, shocking new figures have revealed. Critics argue the presence of Burger King, Costa Coffee and Greggs around sick patients goes as far as being negligent - and is simply adding to the soaring obesity crisis. There are 128 outlets in British hospitals selling junk food, plus a further 32 branches of WHSmith, which sells confectionery - often at a discounted price.

<http://www.dailymail.co.uk/health/article-3014302/Revealed-true-scale-junk-food-available-NHS-hospitals-Critics-say-presence-Burger-King-Costa-Coffee-Greggs-amounts-negligence.html>

The mantra 'eat less and move more' is not enough to help fat people lose weight, experts claim. While the approach may help those who are obese shed pounds in the short term, most put the weight straight back on, they warn. Doctors need to regard obesity as a chronic disease with largely biological causes that cannot be cured through diet and exercise alone, the US specialists add. In the UK, two-thirds of adults are overweight or obese, raising the risk of type 2 diabetes, cancer and heart disease. However dieting triggers several biological systems that drive us to eat high-calorie foods and gain weight – a hangover from when humans needed to store fat to survive in times of scarcity. And according to the four experts writing in The Lancet Diabetes and Endocrinology journal, these biological reasons are why obese people often fail to maintain long-term weight loss. Lead author Dr Christopher Ochner, from the Icahn School of Medicine at Mount Sinai in New York, said lifestyle changes do not appear capable of overriding this fat-loss defence in

most patients. <http://www.dailymail.co.uk/news/article-2950087/Exercise-diet-not-lose-weight-Doctors-treat-obesity-chronic-disease-biological-factors-cause-it.html>

Eating healthily costs three times as much as consuming unhealthy food - and the price gap is widening, according to a study by Cambridge University. Researchers examined almost 100 popular items of food, which is defined under Government criteria as healthy or not. They found that 1,000 calories made up from healthy items, such as lean salmon, yoghurts and tomatoes, cost an average of £7.49 in 2012. The same calorie intake from less healthy items, such as pizza, beef burgers, and doughnuts, could be purchased for an average of £2.50. The gap between the two 1,000 calorie baskets is now £4.99, the research found, when ten years ago it was £3.88.

<http://www.telegraph.co.uk/news/11149644/Healthy-diet-costs-three-times-that-of-junk-food.html>

<http://www.coca-cola.co.uk/packages/health/>

As a company, we have always listened and responded to the needs of our consumers and we know that [obesity is a growing concern](#) for them and their families. Obesity is a complex public health challenge, influenced by many different factors, but we understand the role that diet, including our products, can have on health and wellbeing. All calories count and we are firmly committed to playing our part in helping to address the challenge of obesity. We believe [choice and information](#) are fundamental for consumers to make the right decisions for them and their families so we have taken a number of steps to make this easier.

<http://www.coca-cola.co.uk/stories/health/choice-and-information/tackling-obesity-choice-and-information/>

3 Energy Drinks Culture – what Is It?

3.1 Global Sports and Energy Drinks: Where Consumer Lifestyles and “Lifestyle Branding” Meet

Sports and energy drinks is one of the fastest growing soft drink categories, supported by their lifestyle marketing and functional properties. However, the reasons consumers choose these beverages differ in each market, requiring manufacturers to position their brands specifically in line with the usage of their target customers. <http://www.euromonitor.com/global-sports-and-energy-drinks-where-consumer-lifestyles-and-lifestyle-branding-meet/report>

3.2 Energy Drinks - Psychological Effects and Impact on Well-being and Quality of Life—A Literature Review

The market and degree of consumption of energy drinks have exponentially expanded while studies that assess their psychological effects and impact on quality of life remain in the early stages, albeit on the rise. This review aims to examine the literature for evidence of the psychological effects of energy drinks and their impact on the sense of well-being and quality of life. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3280075/>

3.2.1 How do energy drinks reflect our current culture?

Energy drinks have evolved into their own competition by developing different drinks that appeal to consumers for consumption. Clearly, this can be seen today with the many brands that are out whether they are made by Pepsi or coca cola. The competition has sparked itself into both our culture and pop culture.

<http://mavxc17.blogspot.co.uk/>

3.3 Selling the Young on ‘Gaming Fuel’

G Fuel and a competitor called GungHo are a new incarnation of energy drink, growing in popularity while the energy drink industry as a whole has been under scrutiny because of deaths and hospitalizations linked to consumption of caffeine- and sugar-laden beverages. Traditional energy drink makers have also been playing to the growing gamer culture in some labels — Mountain Dew Game Fuel (with extra doses of caffeine) and Nintendo Power Up Energy Drink. The Facebook page for Monster Energy Gaming declares: “Next time you are looking for some gaming fuel, grab a Monster Energy and Unleash the Beast on some noobs!”

http://www.nytimes.com/2015/05/20/business/energy-drink-industry-under-scrutiny-looks-to-gamers-to-keep-sales-surging.html?_r=0

3.4 Energy Drinks: A Culture of Poisonous Popularity in Sport

Exploring the Many Aspects of Energy Drink Consumption, Effects, and Popularity in Sport.

<https://prezi.com/7misz0v8n8n8/energy-drinks-a-culture-of-poisonous-popularity-in-sport/>

3.5 Sugar is Killing Us?

- The overconsumption of sugar is increasingly being linked to brain-related health issues such as depression, learning disorders, memory problems and overeating
- Research suggests consumption of sugar and sweets can trigger reward and craving states in your brain similar to addictive drugs
- Not all sugars have the identical effects. Fructose has been shown to activate brain pathways that increase your interest in food, whereas glucose triggers your brain's satiation signal

<https://articles.mercola.com/sites/articles/archive/2017/05/06/sugar-brain-health.aspx>

<https://youtu.be/Yda8RtOcvFU>

3.6 How sugar affects the brain - Nicole Avena

When you eat something loaded with sugar, your taste buds, your gut and your brain all take notice. This activation of your reward system is not unlike how bodies process addictive substances such as alcohol or nicotine -- an overload of sugar spikes dopamine levels and leaves you craving more. Nicole Avena explains why sweets and treats should be enjoyed in moderation.

<https://youtu.be/IEBxijQREo>

4 How Do People React On-line to Metabolic Syndrome?

Pumpkin Spice Lattes are the most delicious drinks at Starbucks! When this drink comes on to market it means that my favorite season is finally here! Also, if you are at least the green level on the Starbucks Rewards program you can bring your cup back the same day for a free refill of normal hot/iced coffee <http://www.shespeaks.com/Starbucks-Pumpkin-Spice-Latte-Review>

I'd like to know how many people have had this happen. I went to Starbucks today and I ordered a light drink. The menu at Starbucks defines light drinks as "no whipped cream, non-fat milk and SUGAR FREE syrup". **My bloodsugar after the drink went up to over 400!** So, I went to Starbucks website and sure enough, even though the sign in the store clearly states sugar free syrup, they are NOT all sugar free. I now feel sick physically and mentally, knowing I could have been causing myself some awesome damage drinking these drinks. Has this happened to you? Or am I just being dumb assuming that the sign that says * next to drink name = sugar free syrup? I am so mad.

<http://community.diabetes.org/t5/Adults-Living-with-Type-2/I-m-so-mad-Starbucks-quot-sugar-free-syrup-quot-NOT/td-p/369978>

007

Oh man...words cannot express what happened to me after eating these. The Gummi Bear "Cleanse". If you are someone that can tolerate the sugar substitute, enjoy. If you are like the dozens of people that tried my order, RUN! First of all, for taste I would rate these a 5. So good. Soft, true-to-taste fruit flavors like the sugar variety...I was a happy camper. BUT (or should I say BUTT), not long after eating about 20 of these all hell broke loose. I had a gastrointestinal experience like nothing I've ever imagined. Cramps, sweating, bloating beyond my worst nightmare. I've had food poisoning from some bad shellfish and that was almost like a skip in the park compared to what was going on inside me. Then came the, uh, flatulence. Heavens to Murgatroyd, the sounds, like trumpets calling the demons back to Hell...the stench, like 1,000 rotten corpses vomited. I couldn't stand to stay in one room for fear of succumbing to my own odors. But wait; there's more. What came out of me felt like someone tried to funnel Niagara Falls through a coffee straw. I swear my sphincters were screaming. It felt like my delicate starfish was a gaping maw projectile vomiting a torrential flood of toxic waste. 100% liquid. Flammable liquid. NAPALM. It was actually a bit humorous (for a nanosecond) as it was just beyond anything I could imagine possible. AND IT WENT ON FOR HOURS.

<http://www.amazon.com/Haribo-Sugar-Free-Gummy-Bears/product-reviews/B008JELLCA#>

4.1 Shaming

"Fat shaming" does not help people lose weight, experts have said. Making overweight and obese people feel bad about their size does not encourage them to shed excess pounds – and may even make them put on more weight, researchers found. The researchers monitored almost 3,000 UK adults over a four-year period. They found that the 5% who experienced "weight discrimination" gained an average of 0.95kg over that time while those who did not lost an average of 0.71kg. The team, from University College London, said their findings – which are published in the journal [Obesity](#) – contradict the common perception that "fat shaming" helps people lose weight. They suggested that people may comfort eat as a result of being discriminated against because of their weight. "There is no justification for discriminating against people because of their weight," said the lead author [Dr Sarah Jackson from UCL](#). "Our results show that

weight discrimination does not encourage weight loss, and suggest that it may even exacerbate weight gain. "Previous studies have found that people who experience discrimination report comfort eating. Stress responses to discrimination can increase appetite, particularly for unhealthy, energy-dense food. "Weight discrimination has also been shown to make people feel less confident about taking part in physical activity, so they tend to avoid it."

<http://www.theguardian.com/society/2014/sep/11/fat-shaming-lose-weight-study>

4.2 Foodbanks

The Government's Family Food report reveals that the poorest 10 per cent of the population – some 6.4 million people – ate an average of 1,997 calories a day last year, compared with the average guideline figure of about 2,080 calories. This data covers all age groups. One expert said the figures were a "powerful marker" that there is a problem with food poverty in Britain and it was clear there were "substantial numbers of people who are going hungry and eating a pretty miserable diet". The use of food banks in the UK has surged in recent years. The Trussell Trust, a charity which runs more than 400 food banks, said it had given three days worth of food, and support, to more than 492,600 people between April and September this year, up 38 per cent on the same period in 2013. Based on an annual survey of 6,000 UK households, the Family Food report said the population as a whole was consuming 5 per cent more calories than required. Tables of figures attached to the report reveal the average calorie consumption for the poorest 10 per cent, but the report itself did not highlight this. <http://www.independent.co.uk/news/uk/home-news/millions-of-britons-struggling-to-feed-themselves-and-facing-malnutrition-9946627.html>

An obese mother-of-two who lives on benefits says she needs more of taxpayers' money to overhaul her unhealthy lifestyle. Christina Briggs, 26, from Wigan, says she hates being 25 stone but she can't do anything about it because she can only afford junk food. Meanwhile, exercise is out of the question because she doesn't have the funds to join a gym. The single mother told [Closer Magazine](#): 'It's not easy being overweight and on benefits. If I was well off, I'd be able to buy fresh food and afford a gym membership.

<http://www.dailymail.co.uk/femail/article-2768442/It-s-not-easy-overweight-benefits-says-25-stone-mother-two-wants-MORE-money-government-help-diet.html>

4.3 Comments on Article

I think this woman is the equivalent of an internet troll. Saying something completely asinine in order to generate comments.

[Saleana Justice](#), CARLSBAD, United States, 1 year ago

- u can buy veg plant and seeds with food stamp grow ur own vegss walking is free go but excrize veido and few cheep wieghts hello find bulid with lots of stair and walk those wask to store instead of car use ur kids as weight i lost 140lbs with touching a gym and eating veggies

[vix0021](#), wirral, United Kingdom, 1 year ago

- Erm you have got to be having a laugh. Admittedly I am a 34 year old over weight mother to a 15 year old. I work 36 hous a week, on,my feet, and have always provided for her. For this woman to say that she needs most money to provide for her kids, is a poor excuse! She should be ashamed

[djavatar](#), LV, United States, 1 year ago

- Go for a walk!!! She can exercise at home. Sit ups?? Jogging in place?

5 What Techniques Can We Use to Collect Data?

According to John Creswell, "online communities are widespread phenomena," (Creswell, 1998, p. 37)(Creswell, 1998, p. 37).and as such it is possible to anticipate and describe how their the norms and rituals that shape the social practices of online communities, and the groups of people that are using them. The practices of cyberculture are an observable social phenomenon that can be interpreted and understood in the same way that other social phenomenon can be understood.

Hine suggests that:

"The Internet as a cultural context is established... through applications of ethnographic methods to online settings. That the internet is also a cultural artefact is apparent from the extent to which it is manifested as a

varying and variably used set of technologies that have different meanings for different groups of people. In this sense, using the Internet is a culturally located experience” (Hine, 2005, p. 9).

Cultural expression and communication consists, as Robert Kozinets suggest in the “exchange of meaningful symbols,” which means that as people interact online, then “all manner of human symbol systems are being digitised and shared through information networks” (Kozinets, 2010, p. 8). The role of the netnographer, therefore, is to account for these interactions and to describe how people who produce them, respond to them, or even disregard them, make sense of the meaning that are constructed and exchanged.

5.1 Netnography

As Robert Kozinets asks “is the ethnographer studying some phenomenon directly related to online communities and online culture? Or is the ethnographer interested in studying a general social phenomenon that has some related Internet group aspect? How important, or not, is the physical component that is always attached to human social behaviour?” (Kozinets, 2010, p. 63).

Robert Kozinets states that “netnography examines the individual interactions resulting from Internet connections or through computer-mediated communications as a focal source of data” (Kozinets, 2010). In line with general ethnographic research principles, the techniques used for understanding online social phenomena have to be attended to in such a way that they capture a “detailed and nuanced understanding” of social life online.

This means using data collection techniques that convey the cultural qualities of social interactions in which agents attempt to make meaning of their lived experience as they share that experience, the structures of the groups and networks that they participate in, and the functional principles that they make reference to.

As Kozinets’ points out, the method of data collection used by ethnologists aims to provide a “sense of the lived experience of culture members, as well as a grounded analysis of the structures of their group, how it functions, and how it compares to other groups. Social practices are carefully attended to and systems of meaning delicately unpacked” (Kozinets, 2010).

5.2 Social Practices

According to Kozinets “netnography differs from other qualitative Internet research techniques in that it offers, under the rubric of a single term, a rigorous set of guidelines for the conduct of computer-mediated ethnography and also, importantly, its integration with other forms of cultural research” (Kozinets, 2010). As Netnography is an offspring of general ethnography, the principles of data collection attend to the same principles.

Firstly ethnography is a “naturalistic technique”, or as Robert Prus specifies, it is an ‘interpretative technique’. This means that the researcher is primarily concerned with observation and makes efforts to minimise interventions that ‘test’ a hypothesis among the subjects and volunteers.

Secondly, netnography makes use of information that is ‘found’ on publically available online forums. This means that the researcher has to be attentive to the day-to-day interactions of the area of study, and has to make efforts to align themselves with the participants in an empathetic and responsible manner. This means engaging in some form of participation because the aim is to share the feelings and motivations of the agents being studied.

5.3 Fieldsite Issues

The researcher therefor has to attend to the following issues when making choices about fieldsites:

- How and in what way they will arrange personal introductions?
- How and in what way they will travel to and from the sites being studied?
- How and in what way the interactions with participants will be recorded?
- How and in what way will interviews and handwritten field note data be written and collated?
- How and in what way will multimedia data be recorded and collated?

It is suggested that the principal of netnography is “far less time consuming and resource intensive” (Kozinets, 2010) than physical forms of observation, however, this does not mean that there is a lower sense of expectation about the rigour of the data collection techniques that can be used. It should be remembered, however, that the value of participation is what drives much of this form of ethnographic enquiry, and so by “removing the participative role of

ethnographer from netnography [we] also remove[...] the opportunity to experience embedded cultural understanding. Without this profound knowledge and experience of the cultural context, the interpretation is impaired" (Kozinets, 2010, p. 75).

6 What Techniques Can We Use to Analyse Data?

Sharing a set of foundational principles with ethnography, and acting as a variant or offshoot of cultural anthropology, symbolic interaction is the "study of the ways in which people make sense of their life-situations and the ways in which they go about their activities, in conjunction with others, on a day-to-day basis." This is a "down to earth approach" that "insists upon rigorously grounding its notions of the ways in which human group life is accomplished in the day-to-day practices and experiences of the people whose lives one purports to study" (Prus, 1996, p. 10).

7 Symbolic Interactionism

<https://youtu.be/jFQIIM8IRZU>

The aim is to learn about how community life is experienced and accomplished as people exchange ideas, act to get things done, and embed themselves within the routines and the patterns of community life. By interacting in the practices and accomplishments of community life, it is argued, the ethnographic investigator will be able to draw upon a sense of intimate familiarity with the communities that are being examined "in sustained, participant-informed detail, the (enacted) social essences of the human group" (Prus, 1999, p. xiv).

The intention of this approach is to encourage social scientists "to attend to every single context in which human group life may take its shape – from the most basic of human activities to those that seem the most conceptually sophisticated, technologically developed, and organisationally complex." So by paying attention to the things that people do or accomplish "this approach provides a theoretically coherent means of connecting a great many seemingly diverse and disjointed activities that take place on a community-wide, societal, and even global basis" (Prus, 1997, p. 85).

7.1 Embedded Approaches

Moreover, the reason that this more embedded approach to social investigation is needed is because of the limitations of other forms of research, which often approach their subjects only from a distance, and in the abstract. We are limited in the questions that we can ask if we operate only by seeking to make observations that fit with our already pre-determined theories.

The classic instrumental approaches of the social sciences, according to Prus, often view components of social life as discrete and compartmentalised, and come up with explanations that are themselves discrete and compartmentalised. In realist forms of classical social theory ordinary people are given little credit for what they do, what they understand, and what they are capable of achieving. As an alternative to this deterministic approach, however, the interactionist approach, according to Prus:

"Attends centrally to the study of human lived experience as the paramount reality in the pursuit of a social science. Denoting aspects of intersubjectivity, perspectives, reflectivity, activity, negotiations, relationships, and process, the study of the human condition requires a theory and methodology that respects the distinctive nature of human group life" (Prus, 1997, p. 17).

It is necessary, therefore, that ethnographic researchers take a more direct and familiar manner with their subject matter, so that ideas and models can be developed in closer proximity to the people whose experience is being studied. According to Prus:

"What is required is a transformation or a revitalisation of the social sciences from a positivistically oriented (emphasising objectification, quantification, causation) realm of inquiry to one that centrally attends to the actualities of human lived experience" (Prus, 1997, p. 4).

8 Summary

So, rather than viewing people's behaviour as defined by individual properties (i.e. as an ego, a race, a gender or a class position), the symbolic interactionist approach suggests that concepts of human behaviour are themselves the product

of community life, and that if ethnographic investigators are to understand individual or group actions, they also need to understand the roles that people play out in community life.

Robert Prus suggests that asking “how people become social entities and how they attend to one another and the products of human endeavour in the course of day-to-day life” (Prus, 1996, p. 2), is an essential part of social sciences investigation. In the first instance this is about the investigator developing a familiarity with the language of the community that they are studying. It is only by listening to people and noting what they say and how they say it, that the researcher can gain a *rudimentary understanding* of the people who are acting in the life-worlds that are being studied. Without a reflexive language to express oneself a question remains over the extent to which people acting in a community are able to assert themselves as a *self* - with all the concomitant perspectives, meanings, strategies, and accomplishments that that implies.

Symbolic interaction, moreover, presumes that human agency is accomplished *in* and *through* the language and symbols that people use, and the negotiated terms and agreements that accompany it. As Prus describes:

“Only with the acquisition of a language-based set of understandings or perspective are people able to take themselves into account in developing and pursuing particular lines of action. As Mead (1934) observes, it is the attainment of language that makes the possession of a ‘self’ possible” (Prus, 1996, p. 11).

<http://www.nytimes.com/2011/04/17/magazine/mag-17Sugar-t.html? r=0>

<http://www.wnyc.org/story/278627-dr-robert-lustig-sugar-processed-food-obesity-and-disease/>

Sugar – The Bitter Truth

<https://www.youtube.com/watch?v=dBnniua6-oM>

FAT Chance - Dr. Robert Lustig

<https://www.youtube.com/watch?v=P3WkXJokBAU>

Robert Lustig, M.D.

<https://www.youtube.com/watch?v=uF-ydswVjis>

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