Hanging On To The Edges:

Let them eat cake!

Version 1.0 of June 2017

Come neighbours, no longer be patient and quiet
Come let us go kick up a bit of a riot;
I am hungry, my lads, but I've little to eat,
So we'll pull down the mills, and seize all the meat.
- *The Riot,* nineteenth century English ballad

I had an interesting experience lately. There are sizeable academic literatures that conclude, using various kinds of surveys, that poor people tend to be somewhat more impulsive, anxious, irritable, and aggressive than rich people. I wrote a paper suggesting a hypothesis for why this might be the case[1]. Maybe, I suggested, they are just hungry. That is, at the time of completing the survey, or over the period of being observed, perhaps people with lower incomes are more likely to be hungry, or are hungry a greater proportion of the time, than richer people in the same sample. That could explain the observed correlations.

Hunger could explain the correlations because, quite separately, there are very established literatures showing that when people—or animals of other species too—are hungry, they become more impulsive, anxious, irritable, and aggressive. In other words, hungry people show the very same suite of characteristics that is attributed to the poor in studies of socioeconomic differences. And the good thing about hunger is that we are not limited to correlation: we can manipulate hunger experimentally, within the same individuals, and show that hunger actually *causes* a shift to greater impulsivity etc. You just have to go without food for half a day. You can try it for yourself: it is one experiment I can pretty much guarantee will be successful. So, the hypothesis in my paper was based on two links: one from low income to hunger, and a second from hunger to the suite of characteristics like impulsivity, anxiety, irritability, and aggression. The second of these links is absolutely rock solid, and unequivocally causal. The first link—that low income leads to greater hunger—relies on inference from more correlational types of data, but the evidence suggesting it is extremely abundant and compelling too, as we will see. As I saw it then, I had taken a mystery—the poor are more impulsive and irritable, for currently unknown reasons—and, by my hypothesis, demystified it into two steps, both of which we had prior grounds for believing to be correct. This left us with a simple, eminently testable scientific hypothesis, namely: the known relationships between income and hunger, and between hunger and impulsivity, irritability, etc., suffice to explain the observed correlations between poverty on the one hand and impulsivity, irritability etc. on the other.

So there I was feeling moderately pleased with myself. I didn't claim that my hypothesis was correct (we don't currently know that), but I did review the reasons for considering it, and discuss the ways it ought to be tested, without prejudice as to what the results of those tests would be. Feeling I had done what good scientists are supposed to do, I turned in my paper, and looked forward to the peer reviewers patting me on the head. Did they?

They did not. Generally, they hated it. More precisely, most of them hated most of it. I know because the scientific publishing industry gave me a number of opportunities to sample again from

[1] Nettle, D. (2017). Does hunger contribute to socioeconomic gradients in behaviour? *Frontiers in Psychology* 8: 358.

the pool of possible peer reviewers—as many samples as it took to finally find two (Pete Trimmer and Dan Fessler, this is all in the public record) who didn't hate it, or at any rate were generous enough to let the ideas get stated. Most of the reviewers who didn't completely hate all of it nonetheless wanted me to add pointless qualifications of the 'there are likely to be many factors involved' kind that, as far as I can see, added nothing to the paper except length—in fact, they reduced the cogency. Of course, the problem may have been that I didn't write the paper well enough. But it felt like something more interesting was occurring. I have, often in my life, for various reasons, ended up writing bad 'on the one hand…' papers that blather on inconclusively about various esoteric topics without presenting any clear or socially important take-home ideas; no ideas you could actually do something useful with. The peer reviewers have usually loved these papers. To me, the hunger paper was worth much more than all those disappointing efforts combined. But the disappointing efforts are published in much more 'esteemed' journals, and seem to have been much better received, than the hunger paper. This is not an isolated case: Many academics will tell you that the papers they most value and are most proud of are the ones they have most trouble publishing, whilst their derivative, arcane or trivial ones sail through. I want to understand why.

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Part of the reason for the poor reception of the hunger paper may be to do with intuition interference. I had an intuition that one particular experience—hunger—could be doing quite a lot of the work in explaining some of the subtle ways the poor behave differently from the rich. But I unrolled my idea on a terrain where others—specifically, the peer reviewers—already had quite developed intuitions about other constructs that could be important. 'What about parenting?', they asked. What about social norms? What about stress? What about the perception of relative disadvantage? Indeed. Some of these things might turn out to be nested within the hunger idea (there's a social norm in some social groups of being impulsive; but why did the social norm get established; perhaps because people in those groups are often hungry). Some are alternatives to my idea. But really, this reviewer reaction comes down to: 'my intuitions wouldn't have had me starting from there'. It's hard to know how to respond. You feel like saying: why don't you start from where you want to start from and see how far you can get, and I will start from where I want to start from and do likewise, then we will compare notes when we meet? But it's hardly a flaw of my paper that it is about what I want it to be about, not what you want it to be about.

A related refrain that arose in these discussions was: but surely a hypothesis that simple is likely to be wrong? Well, I agree. That's one of the reasons I felt so pleased with myself for having written the paper. Because science, I've heard, is about saying things that have the potential to be wrong. We even have a posh term for it: falsifiability. Essentially, science consists in making statements that have the potential to be judged, when all the evidence is in and the debates have been had, to be definitely wrong. If it couldn't be definitely wrong, it's pseudoscience. I have slightly over-simplified here; I have articulated what is known to philosophers as naïve falsificationism. But more nuanced positions in the philosophy of science still come down to scientific theories being different from non-science in their eventual 'discreditability' by the accumulation of anomalous evidence.

It seems to me to follow from this that the simpler your claim—the fewer constructs, linkages and relationships, the fewer degrees of freedom and reciprocal loops—the better you are probably doing in terms of scientific theorising. This point doesn't go down well in some of the waters in which I swim. People have a fondness for a kind of list-like descriptive exhaustiveness in their theorising. They will earnestly present their 'theory' as a kind of flow diagram, with numerous boxes labelled things like 'parenting', 'social norms', 'perceived disadvantage', 'social comparison', and so forth. Pretty much every box has an arrow going to the outcome, and to pretty much every other intermediary box. Some pairs of boxes have reciprocal arrows. Some of the peer reviewers wanted me to change my paper from a statement of a simple hypothesis, to a complex review of the many factors likely to be involved in socioeconomic differences in behaviour, ideally with a ghastly diagram of this type as figure 1.

Now the question is: in a thousand years, is my simple hunger hypothesis, or one of these many-factors-influence-the-outcome-and-also-each-other hypotheses, more likely to be left standing? The hunger hypothesis, presumably, is more likely to have failed. But rather than seeing that as a limitation, should we not see this as a good thing? There's a chance for the hunger hypothesis that in a thousand years we will be able to conclusively say: here's a possibility that people thought about, but turned *not* to be the answer (or not the whole answer). That's a kind of progress. For the many-factors theories, I think the most likely answer is that in a thousand years, as now, it won't really be possible to say whether they are still standing or not. This is because more or less any observation we make in the next thousand years is going to be compatible with such theories; weakly compatible, since the theories can accommodate so many slightly different patterns of covariance between the various things we measure. And many of the linkages in these theories are pretty much bound to be there (for example, poor people will always make negative social comparisons between their own situation and that of other people in society), regardless of whether there is any causal importance to them or not. So I suppose I felt dismayed that the flaws laid at the door of the hunger hypothesis (its mono-factorial nature; its ignoring of many constructs currently discussed in the literature; its simplification of a complex reality) were exactly what I had most liked about it.

This is partly a question of taste. People vary in their tastes for stark simplicity versus swelling encampments or baroque twirls in explanations. And differences in taste, as Pierre Bourdieu observed years ago, often demarcate and reinforce fault lines between social groups[2]. A taste for simple models that can be exactly stated in a small number of equations demarcates many economists from their colleagues in most other social sciences. More generally, the veneration of theoretical simplicity versus reticulation constitutes a marked style difference between scientific communities. ("Hey Isaac. This gravity thing. There have got to be more factors than that in the motion of the planets...maybe motion itself *feeds back* to influence gravity through a nexus of reciprocal autopoiesis…."). As Bourdieu understood well, when you violate a distinction of taste, you can end up cast out from the social group that promotes it; and the tastes of other groups are viewed as anathema, definitely (like my paper) not to be accepted.

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As well as a general distaste for very simple hypotheses, my hunger paper seemed to tap into something more interesting; namely, an incredulity about the possibility that people could really be hungry; that their hunger could be real and important, or could explain what they do. This incredulity appears to be widespread, and it doesn't stop at academics. Kayleigh Garthwaite nicely documents the incredulity amongst commentators and politicians in the contemporary UK, in her recent book *Hunger Pains: Life Inside Foodbank Britain*[3]. For example, faced with evidence of the massive increase in people in the UK relying on emergency food aid, former Conservative politician Edwina Currie was simply incredulous that people could actually be hungry. "We should feel cross about [how many people are going to food banks], all of us" because "….they've just never learned to cook…", and, surreally, as if this were a decisive argument, "the moment they've got a bit of spare money, they're off getting another tattoo". I know it's hard to understand, Edwina, but people with tattoos can be hungry too.

When I ask people to give reasons for their incredulity about people being hungry in affluent countries like Britain and the USA, they usually respond in one of two ways: 1. but the poor are often overweight, so they can't really be hungry; and 2. but they have *large televisions*. Both of these arguments are weak; they collapse under a moment's scrutiny.

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[2] Bourdieu, P. (1984). *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, MA: Harvard University Press.

[3] Garthwaite, K. (2016). *Hunger Pains: Life Inside Foodbank Britain.* Bristol: Policy Press. Edwina Currie quotes from p. 68.

Argument 1: it is perfectly possible to overweight all of the time, and hungry quite a lot of the time. Just think about it. Say that your cash-flow is very tight, so that for the later part of each week or month you don't have money to buy sufficient food and you go hungry, but when your benefits or wages arrive at the beginning of the month, you suddenly can buy food. What would you do? You would immediately go and buy as much affordable energy-dense food as you could, and you would quite understandably overeat. You've been hungry all week! You would probably buy food that is high in sugar and fat, because this gives you easily the most calories to the pound or dollar[4]. Unfortunately though, this is also the type of food that leaves you satiated for least long. It could well be that, averaged over the whole month, you consumed more calories than you needed and stored some of your intake as fat; but nonetheless, for substantial parts of the month, you were hungry. It is well known that hunger and obesity tend to coexist within the same families, for exactly this reason; the extensive social-science literature on the topic refers to this as the 'hunger-obesity paradox'[5]. There is even some evidence that participation in food stamps programmes leads to greater weight gain, basically because the monthly timing of the arrival of the food allowance makes for a cycle of hunger and overeating[6]. And the coexistence of hunger and fat is not even a specifically human thing: if one group of birds is given constant axis to food, whilst a matched group has its food taken away for periods of time, it is group with constant access that remains thinner; it is the group with periodic hunger that tucks in when it can, and stores extra calories as fat[7].

Argument 2: Argument 2 is similar to argument 1 in failing to appreciate the temporal aspects of poverty. Just as being obese only means that *some of the time* you were able to buy enough calories to eat more than you expend, having a large television or other consumer good only means that *at least once in the past few years* you had a couple of hundred pounds to spare. And that's perfectly possible, since what characterises the precarious poor in affluent societies is not that they never have resources, but that their resources fluctuate close to the edge. All of us experience resource fluctuations; my bank balance is a couple of thousand pounds lower at the end of the month than the beginning. But in my case, the fluctuations are completely predictable, and anyway of no consequence to me, since I operate so far above the threshold where I would have to go hungry. A person experiencing fluctuations of smaller magnitude, but less predictable (for example due to inconstant employment or benefits delays) and/or operating closer to the edge, might well have the odd moment when things were looking better, and they then understandably wanted a TV to watch, but also lots of moments when fluctuations took them to the edge. At these times they would have to go hungry. In fact, there is abundant evidence of poor people in Britain pawning their consumer goods during down-fluctuations in order to buy food, and having to buy them back again at inflated rates during up-fluctuations[8].

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[4] Drewnowski, A., & Specter, S. (2004). Poverty and obesity: the role of energy density and energy costs. *American Journal of Clinical Nutrition* 79: 6–16; Jones, N.R.V. et al. (2014). The growing price gap between more and less healthy food: analysis of a novel longitudinal UK dataset. *PLoS ONE* 9: e109343. Jones et al. show that the cost gap between healthy and unhealthy foods is growing.

[5] Dietz, W. H. (1995). Does hunger cause obesity? *Pediatrics* 95: 766–7; Scheier, L. M. (2005). What is the hunger-obesity paradox? *Journal of the American Dietetic Association* 105: 883–885; Nettle, D., C.P. Andrews & M. Bateson (2017). Food insecurity as a driver of obesity in humans: The insurance hypothesis. *Behavioral and Brain Sciences* 40: e105.

[6] DeBono, N. L., Ross, N. A., & Berrang-Ford, L. (2012). Does the Food Stamp Program cause obesity? A realist review and a call for place-based research. *Health and Place* 18: 747–756.

[7] Ekman, J. B., & Hake, M. K. (1990). Monitoring starvation risk: Adjustments of body reserves in greenfinches (*Carduelis chloris L*.) during periods of unpredictable foraging success. *Behavioral Ecology* 1: 62–67; Witter, M., Swaddle, J. P., & Cuthill, I. C. (1995). Periodic food availability and strategic regulation of body mass in the European Starling, *Sturnus vulgaris*. *Functional Ecology* 9: 568–574.

[8] Garthwaite, K. (2016). *Hunger Pains: Life Inside Foodbank Britain.* Bristol: Policy Press; O'Brian, M. & Kyprianu, P. (2017). *Just Managing? What It Means for the Families of Auterity Britain.* Cambridge: Open Book Publishers.

So, in short, it is very easy to envisage patterns of resource fluctuations over time that would leave a person overweight and with a large television; and yet it would still be the case that they have often been hungry, because their income was insufficient to buy food every day (figure 1). But figure 1 is a hypothetical example. Is there empirical evidence that hunger is widespread amongst poorer people in affluent countries? This is where the rubber hits the road as far as my hunger hypothesis goes, of course; if it is not, then the hypothesis has no prospect of working. But the answer is that there is such evidence, and plenty of it.

In the USA, for example, social and nutritional surveys routinely measure the constructs of 'food insecurity' and 'food insufficiency'[9]. These are questionnaire measures based on items like "In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn't enough money for food?" or, for households with children, "Do your children ever say they are hungry because there is not enough food in the house?". Based on these measures, around 16% of US households come out as food insecure, and 21% of children are classified either frequently hungry or at risk of being hungry. But, importantly, the percentages are much higher amongst those on low incomes: about 40% of households food insecure, and 50% of children frequently hungry or at risk from hunger.

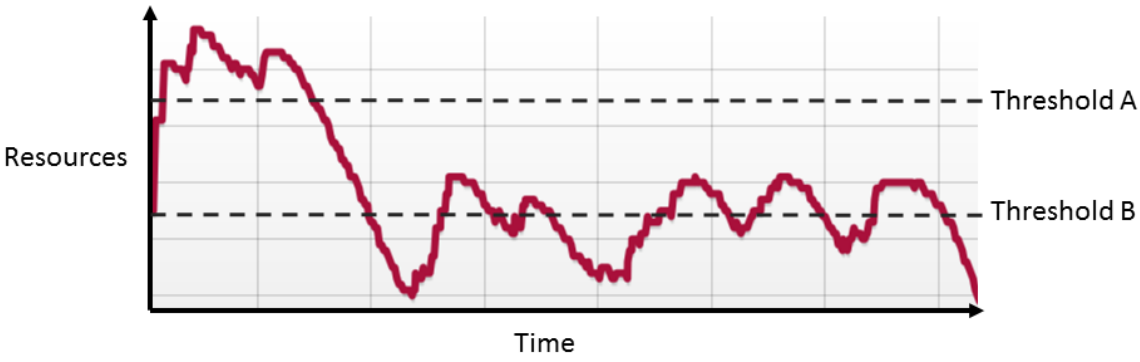

Figure 1. A hypothetical pattern of resources over time that would leave me with a large television and overweight, yet often hungry. Assume that when the money in my pocket is above threshold A, I can afford to go and buy myself a television or other reasonable consumer comforts. When it is between thresholds A and B, I can buy enough food to consume many more calories than I expend, especially by buying cheap energy-dense foods high in sugars and fats. When it is below threshold B, I can't afford to buy enough decent food to avoid hunger.

And it doesn't stop there. Over forty-three million Americans are enrolled in the Supplemental Nutrition Assistance Program (SNAP); in other words, they receive food stamps because they cannot procure enough to eat. Yes, forty-three million; it was one of the things Donald Trump said in his 2016 election campaign that was actually true. That's around 14% of the population. There is also a vast panoply of non-governmental food-assistance programmes and food pantries. In the UK, the largest single charitable food bank organization, The Trussell Trust, fulfilled 1.18 million referrals for three-day emergency food packages in the year to March 2017[10]. And although the Trussell Trust is the largest provider of emergency food aid, it is by no means the only one. 'Holiday hunger' is a widely reported problem amongst those on low-incomes. During school term, children receive free meals at school. In the holidays, the adults at home need to provide food for them. They may not be

[9] See Nettle, D. (2017). Does hunger contribute to socioeconomic gradients in behaviour? *Frontiers in Psychology* 8: 358, for more details of the evidence reviewed in this passage.
[10] https://www.trusselltrust.org/news-and-blog/latest-stats/end-year-stats/

able to afford to do this, or in order to do so, they may need to go hungry themselves. In a recent survey of UK primary school teachers, 78% said they had seen evidence that some children in their classes were going hungry during the holidays, and 37% said they had seen instances of malnutrition amongst children returning to school[11]. An all-party committee of the UK Parliament investigated hunger and food poverty in Britain in 2014 and concluded that hunger was a 'permanent fact of life' in the UK's poorest communities[12].

I could go on, but I think you see my point. In the richest nations on earth, a lot of people are hungry a reasonable amount of the time. Those on low incomes are particularly likely to be hungry. Thus, if you sample a cross-section of the UK or US population at any moment in time, quite a few of them will be hungry, particularly those whose households are poorer. And that's all my hunger hypothesis needs.

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When I started working on hunger, I assumed that the incredulity people have about the hunger of others was something specific to very affluent societies like twenty-first century Britain and the USA. In these societies we have so often been told, by the media for example, that our problems are problems of overabundance, that we just can't get our heads around the fact that this is not true for everyone. In earlier times or poorer countries, such incredulity would not exist.

As I go on though, I begin to appreciate that the incredulity might be a symptom of something much more general. After all, the original 'Let them eat cake!' was uttered by someone who lived at a time where famines were quite familiar, who had been told the peasants had no bread. Now, I say uttered by someone, because there is no evidence that it was really Marie Antoinette. The phrase was actually attributed to an unnamed 'grande princesse' by Jean-Jacques Rousseau in his *Confessions*. And what this great princess is supposed to have actually said is: 'Qu'ils mangent de la brioche' which might be better rendered as 'let them eat brioche'. But these textualities aside, the point is that even in a world where famine was a familiar occurrence, someone who was not hungry could not get her head around some other people in the same society being hungry. And this is not the only example. Apparently when Emperor Hui of China (over a thousand years ago) was told his people were starving because they had no rice, he reportedly said 'Why don't they eat ground meat?'. In the food riots that accompanied the Corn Laws of nineteenth-century England, magistrates were often keen to point out that the hungry rioters were not entirely destitute, and belonged to respectable trades, trying to suggest by this that what really drove them was not hunger, but avarice or malice[13]. This is Edwina Currie *avant la lettre.* So incredulity that others could really be hungry, or that hunger could be the real wellspring for their behaviour, seems to be general and long-standing.

This relates to a point made by George Loewenstein in a memorable article on 'visceral factors' in human decision-making[14]. By visceral factors, he means states like hunger and thirst, amongst others. Loewenstein's first, surely correct, argument is that these factors have a big influence on the decisions we make. His second argument is perhaps a more unusual one: when we are not in the grip of such states, we are not good at mentally simulating the decisions we would make if we were. We don't get it. A corollary is that when we ourselves are not in the grip of a visceral factor, we just can't understand the behaviour of other people who are. Why are they doing that, we ask? They've got tattoos!

[11] https://www.teachers.org.uk/news-events/conference-2017/nut-survey-holiday-hunger
[12] Quoted in Garthwaite, K. (2016). *Hunger Pains: Life Inside Foodbank Britain.* Bristol: Policy Press, p. 2.
[13] Sutton, J. (2016). *Food Worth Fighting For: From Food Riots to Food Banks*. London: Prospect Books, p. 23.
[14] Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes* 65: 272–292.

I have become aware of the force of Loewenstein's argument in my everyday life. I periodically find myself near the finish line of a 10k road race or half-marathon, waiting to cheer my beloved wife home. Sometimes I can see that, in the final few hundred metres, she is not far behind a rival, or is in contention for a personal best time. When it's not clear whether she will prevail, I sometimes find myself thinking, 'Why doesn't she just…run a bit faster?'. I know she can run a bit faster, because we often train together. I almost resent it as a caprice that she doesn't, and I have to censor myself. But of course, in that moment, *I'm not fatigued.* The reason she doesn't run a bit faster is that she is making a supreme effort to continue in the face of mounting exhaustion. When I am running, this happens to me too. But somehow, when I am not fatigued myself, the right intuition doesn't come to me, and all the wrong ones (Is she really trying?) come to mind.

This visceral-state-blindness relates to a classic psychological phenomenon called the fundamental attribution error. The fundamental attribution error refers to our default position, when confronted with people's behaviour, of attributing it to their personality or enduring dispositions, rather than their current situation. We systematically neglect the temporal fluctuations in people's states, in favour of assuming they are just always like that. As many people have pointed out, the fundamental attribution error is poorly named, because sometimes, often even, it produces the correct attribution rather than an erroneous one. So it's better thought of as an explanatory style; one that may be reasonable or prudent on average, but in particular instances leads us to neglect powerful situational influences—such as hunger, itself a product of the powerful influence of having no money right now. That's why commentators are so prone to argue that reliance of food banks must reflect poor moral character, or poor planning, or that "they never learned to cook", when I am afraid the true situational culprits are staring us in the face.

I don't know why we would be so bad at mentally simulating the influence of visceral factors on ourselves and others. It would seem to me very useful to be able to detect and anticipate such regularities in behaviour, but Loewenstein's argument suggests that we aren't good at it. And perhaps that's why the reviewers had such a problem with my hunger paper; an intuition blank around the possibility that a simple visceral factor could really be what is at work. Because really my paper was radical in its implications. You know the poor, it said; they're *just the same as you*, only hungry. If you were hungry, you would behave like them; and, most importantly, if we could ensure that everyone in society had secure daily access to abundant and nutritious food, these social differences would simply and instantaneously disappear. No complex arguments about the culture of poverty; no arcane theories about anomie, epistemes or structuration; no feedback loops. The issue would just *go away*. As I said earlier, this hypothesis may well not be correct. It probably isn't correct. But it's an interesting and audacious claim that you could actually do something with. Why would it be bad to try to test it destruction?

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This has got me to thinking: are hunger and food systematically neglected, as topics of investigation or sources of explanation, across the contemporary human sciences? I suspect perhaps they may be. For example, a celebrated study showed that people from different societies from across the world differed substantially in their behaviour in a dilemma known as the Ultimatum Game[15]. In the Ultimatum Game, one person has to split a sum of money between themselves and another individual. The second individual can either accept the proposed division, or else reject it, in which case both parties go away with nothing. Now this is something of a dilemma. A strict income-maximizer should accept any non-zero offer, since getting something is better than getting nothing. But people don't like being treated badly, or to see others serving themselves, and so they will often reject low offers, hurting themselves a little but hurting the other player more. And the celebrateds

[15] Henrich, J. et al. (2006). Costly punishment across human societies. *Science* 312: 1767–70.

tudy confirmed that this was true in all the societies—there was a lot of variation within each society, but in every single one, non-zero offers sometimes got rejected.

The rate of rejection of low offers was much higher than in some societies than in others, though, and this was the headline finding. Of all the various ideas that have been put forward to explain the variation across these societies, I have not encountered the proposal that people in some societies were on average hungrier than those in others at the time of testing. But it makes a lot of sense: the diverse sample of societies subsisted on everything from hunting and gathering to the Western diet, so there would have been variation between as well as within societies in what, how much and how recently people had been eating. Moreover, there is clean experimental evidence that what you had for breakfast strongly predicts whether you will reject low offers in an Ultimatum Game played in the middle of the morning[16]. In particular, if you have a high-carb breakfast, you reject low offers; a high-protein breakfast makes you more accepting. We know this is causal, since the experiment that established it randomly assigned people to a particular type of breakfast; and the effects were pretty large. So variation in recent eating could well be enough to explain the differences between the societies. But no-one thinks to measure what the participants had for breakfast in cross-cultural studies, leaping instead for explanations that are less visceral, but also less grounded in what we actually know of how the individual, embodied human decision-maker functions.

This is one example of food-blindness in the contemporary human sciences. If you start going on about the hunger drive and control of feeding, as I am prone to do, you feel like a behaviourist throwback to the 1950s. The textbook models of human cognition hardly seem to consider hunger as an input or eating as an output. Hunger and eating are seen, perhaps, as marginal or low-level biological processes, barely even cognitive, not as interesting as spelling words or working out how likely people are to become bank tellers. In the vast literatures on human judgement and decision-making, the judgements and decisions studied are often about money, but almost never about food. This is curious, because most human societies lack or have lacked money, but not a single one has lacked eating. A good argument can be made that the mechanisms with which we make money decisions actually evolved to deal with food options. It's only by a secondary exaptation of them, in contemporary societies, that we can decide between financial dilemmas. It's not clear to me why food and eating aren't more central topics. Many a times a day, you make life-and-death decisions about what to put in your stomach, and generally you do it so remarkably well that the process goes unnoticed. When was the last time your survival depended on a correct inference about whether someone was a bank teller or not?

Faced with all this, it's hard to avoid the conclusion that the contemporary human sciences are written by the well-fed. Hardly experiencing the state of hunger, academics can't imagine hunger and food as central issues in human life. Hungry? You just go to the canteen, neat and quick, then you can get straight back to work on social identity. A particularly disappointing non-player at the table here is the paradigm known as evolutionary psychology. With its keenness on relating contemporary psychological processes to their evolutionary origins, and exploring continuity with other species, you would think evolutionary psychology would make hay in the fields of hunger and eating. Not a bit of it. There is really rather little work done on the topic.

This is rather odd, given that evolutionary psychology can hardly be accused of neglecting another visceral factor: sex. It sometimes feels like evolutionary psychology is mainly about sex, in particular the choice of how and with whom to have it. I don't know much about your ancestors, but what I can be sure of is the following. Each of them managed to have sex, with someone of approximately the right species, at least once in their lives. By contrast, they had to procure and select several thousand calories of appropriate food *every single day*, never starving and never poisoning themselves, for tens of years. Put like that, what ratio of evolutionary psychology research papers on

[16] Strang, S et al. (2017). The impact of nutrition on social decision making. *Proceedings of the National Academy of Sciences of the USA*, published online.

the psychology of hunger and food to the psychology of mate choice and sex, ought we to expect? And look at the ratio we observe.

What this tells us is that evolutionary psychology, so far, is mostly the cultural invention of affluent college students and those who interact with them. Perhaps when you are nineteen, privileged and live on a college campus, you are rather more concerned about who your next sex partner will be than where your next meal is coming from. You can't imagine this to be anything other than the normal state of affairs for humans. And so there is a great deal of evolutionary psychology research about dating and hooking up, and then a bit about stuff like making friendship groups and working in teams; and not a lot about hunger, poverty, domination, social conflict, infirmity, death. I think this may be part of evolutionary psychology's image problem amongst social scientists. Social scientists' (philosophically unnecessary) dislike of evolutionary psychology is partly founded on (sometimes wilful) mischaracterisation and misunderstanding of its premises, as has been well discussed[17]. But another part of it is simply due to evolutionary psychology's topical obsessions, which seem frivolous to those who work amongst poor, ageing, threatened or socially marginalized people, or on pressing societal issues. As I have been trying unsuccessfully to argue for a number of years, the best thing evolutionary psychology could do for its image problem would be to show up at the debates about poverty and inequality within our affluent societies[18]. And if that means we don't get so much time to worry about optimal breast size or the significance of how far apart one's eyes are, I for one would accept that as collateral damage[19].

Alright. Here endeth the lesson. Enough self-righteousness from me. I need lunch.

[17] For example by Kurban, R. & M.G. Haselton (2010). Making hay out of straw: Real and imagined controversies in evolutionary psychology. In J. Barkow (ed.), *Missing the Revolution: Darwinism for Social Scientists*, pp. 149-66. Oxford: Oxford University Press.

[18] Not all evolutionary psychology deserves the criticism I have voiced here. Special mention to venerated pioneers Martin Daly and the late Margo Wilson, e.g. Wilson, M. & M. Daly (1997). Life expectancy, economic inequality, homicide, and reproductive timing in Chicago neighbourhoods. *British Medical Journal* 314: 1271.

[19] Though for the record, your assessment of optimal breast size seems to depend how hungry you are: Swami, V & M. J. Tovée (2006). Does hunger influence judgments of female physical attractiveness? *British Journal of Psychology* 97: 353-63.