

REVIEW

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Gastrodiplomacy: Assessing the role of food in decision-making

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Abstract

This review addresses a number of questions around the relation between food and decision-making/social behaviour, including the following: Can food be used as a tool of political persuasion? What role, if any, does the food we eat have over the decisions we reach? Do we bond with those with whom we happen to share a meal? And is it ever ethical to accept a free lunch? Can the provision of food be used to enhance creativity/productivity? Ultimately, the case is made that what we eat plays a far more important role in cognition, decision-making, and impression formation than most people realize.

Keywords: Gastrodiplomacy, Decision-making, Impression formation, Cognition, Free lunch

Review

You can find my favourite tapas bar hidden away under the shadow of the Alhambra Palace in Granada, Spain. However, unless you know exactly where to look, you will probably miss it. The reason being is that it is situated in a beautifully tiled windowless room hidden away behind a tiny butcher's shop. You have to be prepared to walk through an assortment of hanging meats in order to get to the tables. It always seemed like a most peculiar design. Why, after all, would anyone situate a tapas bar behind a wall of hams? And yet perhaps this is the trace of a message sent through food from centuries ago. Indeed, anyone who has spent time in Spain cannot help but have noticed all the hanging pork legs in the windows of shops and restaurants across the land. But what, exactly, are they doing there? Well, the suggestion is that once upon a time, they served as an effective reminder that the inhabitants were neither Muslim nor Jewish. The tradition of prominently displaying a ham to signal one's religious beliefs started at a time of great political upheaval in the country.¹ One can, I suppose, think of this as an early example of gastrodiplomacy²: that is, the use of food to convey a specific message to others.

Humans have been sharing food for a very long time

What is clear from the historical record is that humans are inherently social beings and have been engaged in feasting (that is, in the ritualized sharing of food) for an awfully long time. In fact, some of the earliest evidence has come from a burial cave in Israel, from around 12,000 years ago.³ Archaeologists and anthropologists believe that communal eating has played such a crucial role in our continued development precisely because of its ability to facilitate bonding and maintain social cohesion within groups of individuals.⁴ According to my Oxford colleague, the evolutionary psychologist Prof. Robin Dunbar: "The act of eating together triggers the endorphin system in the brain and endorphins play an important role in social bonding in humans. Taking the time to sit down together over a meal helps create social networks that in turn have profound effects on our physical and mental health, our happiness and wellbeing and even our sense of purpose in life."⁵ Here, it is also interesting to consider the origin of the word "companion" from the Latin "cum pane" meaning the person you share bread with.⁶ Eating and drinking hold a special role in terms of fostering social relationships precisely because they involve bringing outside substances into the body.⁷

Over the centuries, various commentators have highlighted the relationship between gastronomy and diplomacy. Just take Jean-Anthelm Brillat-Savarin, writing in the early decades of the nineteenth century: "Read

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the historians, from Herodotus down to our own day, and you will see that there has never been a great event, not even excepting conspiracies, which was not conceived, worked out, and organized over a meal.”⁸ Or take the following from the Italian Futurist F. T. Marinetti writing in the 1930s: “...great things have been achieved in the past by men who were poorly fed”. Yet, “what we think or dream or do is determined by what we eat and what we drink.”⁹

Until recently, though, it was never clear quite how food could influence our decision-making. However, the latest research now unequivocally shows that sharing a meal results in more positive (affiliative) social interactions between those who dine together, not to mention fewer hierarchical displays of dominance and submissiveness (e.g., between employees and their bosses and between parents and their offspring). In other words, agreeable behaviours were found to increase during meals, as compared to at other times. These, at least, were the major findings to have emerged from a recent study in which nearly 100 working individuals provided information on their everyday social interactions.¹⁰ There was also a measurable increase in self-reported positive mood in those meetings that occurred while people were eating together.¹¹

Does food influence our decision-making?

We like to think of ourselves as rational beings. As such, one might well imagine that the decisions we make should not be influenced by the foods we eat. However, it has been known for decades now that such a simplistic view of the human condition cannot be corrected. In fact, we all show systematic deviations from rationality across a wide range of everyday situations. Some of the classic early research demonstrating the impact of food on our thinking comes from the psychologist Gregory Razran. Back in 1940, he described what has since become known as “the luncheon technique”: Basically, he presented sociopolitical statements such as “Down with war and Fascism! Workers of the World Unite! America for Americans!” to 24 people (a mixture of students and unemployed workers), who had to rate them for personal approval, social effectiveness, and their literary value. The slogans were then divided up into two groups, with one set being presented while the participants ate a free lunch and the others while they were subjected to a number of putrid smells instead. After five to eight sessions of such conditioning, the participants rated the statements once again. No prizes for guessing that those statements that had been associated with the free lunches obtained significantly higher ratings while those that had been associated with the putrid odours were given much lower ratings the second time around.¹²

Given such evidence, one might want to consider the ethics of the business lunch.¹³ Is not this a situation, after all, in which one party wines and dines another in order to achieve some advantage or other? If the provision of such hospitality really does bias people’s decisions and beliefs in the way that Razran’s early research implied, then is it really ethical, i.e., persuading people through their stomachs rather than through their minds? Well, these were just the kinds of issues that Halvorson and Rudeleis were grappling with when they interviewed a number of business folks Stateside back in the mid-1970s. Intriguingly, their research suggested that people did not expect that going to lunch with a client would necessarily lead directly to increased sales. On the other hand, though, it was also true to say that they were worried that if they did not do it, sales might well decline!¹⁴ So, returning to the question, is it ethical to offer someone a free lunch? Well, I guess that is for you to decide.

That said, should you find yourself taking a client out for a meal, then one important tip here is to make sure to order the same food as those whom you are trying to impress. Why so? Well, it turns out that “People who are served the same foods are more likely to trust one another, smooth out problems and make deals”. Specifically, in a study soon to be published in the *Journal of Consumer Psychology*, Kaitlin Woolley and Ayelet Fishbach, both from the Booth School of Business in Chicago examined whether eating the same food (in this case, candies such as Butterfingers, Sour Patch, Peppermint Patties, and Airheads) would help strangers come to some kind of agreement when engaged in negotiations. Pairs of individuals who did not know each other to begin with were either given similar or dissimilar sweets to evaluate before taking part in a trust game or a labour negotiation scenario. Those who ate the same food ended up cooperating more and would therefore have earned more money than those who evaluated different candies to begin with. It will, of course, be interesting in future research to follow-up on these findings in order to determine whether or not those who *already* know each other would be similarly affected.¹⁵ And to scale this research up from kids’ candy to a proper meal, say.

The free lunch—the essence of smart management

In recent years, a number of companies have taken an innovative stance with regard to the provision of “free” food for their employees. *Google* is famous for this. Yet, they are by no means the only ones. According to a recent report, *Pixar*, *Apple*, *Dropbox*, and *Yahoo* all do the same.¹⁶ Why so? Well, according to one commentator writing in *Forbes Magazine*, the strategic reason behind all that free food: “isn’t just to trick employees into staying on campus. Its purpose is actually to inspire

innovative thinking. As Laszlo Bock, the Senior Vice President of People Operations explains ... the purpose of the cafes and microkitchens (smaller areas stocked with food and drink closer to work stations) is to create a place for employees to leave their desk and interact with other people whose desks are not near theirs. Bock reveals that most of these food sources are strategically placed between two separate work teams, and the goal of that placement is to draw these different folks together and nudge them to interact and collaborate. “At minimum, they might have a great conversation. And maybe they’ll hit on an idea for our users that hasn’t been thought of yet.”¹⁷

But what difference does this make? Are these companies really offering their staff a proverbial “free lunch”? Well, it is hard to find any well-controlled studies from the tech sector that directly demonstrate the benefits of providing free food. Intuitively though, and based on everything that we will see here, it would certainly seem like the right thing to do. Perhaps the closest one gets to evidence that is relevant here comes from research conducted recently in a very different sector: namely, at a number of fire stations in a major city in the USA. There, those firefighters who showed increased levels of commensality—i.e., eating together—exhibited better performance while on the job.¹⁸ One also hears much the same argument being put forward at the Oxbridge colleges where a “free” lunch is typically part of the deal for the teaching staff. It is just such casual conversations between those of different subjects who are normally holed up in their own disciplinary bunkers that can lead to interdisciplinary collaborations that might not otherwise occur. That said, before getting too carried away with the idea of collective dining, I would also say that there is a role for solitude too, at least for all those introverts out there.¹⁹ Meanwhile, the latest research from Dan Ariely that appears in his new book *Payoff: the hidden logic that shapes our motivations*

has demonstrated that free pizza was almost as effective as a staff motivator. Such results leading to the suggestion that: “Workers are more motivated by the offer of free pizza than a cash bonus, according to research from Duke University”.²⁰

Intriguing findings reported in the *Harvard Business Review* attempted to quantify just how much of a potential benefit might accrue as a result of eating while negotiating a complex trade deal. To this end, groups of MBA students ($N = 132$ in total) had to finalize the details of a complex joint venture agreement between two companies that had already been agreed in principle. In order to maximize the potential benefits for both sides, the negotiation required a degree of empathy and understanding for the other side’s position/needs. The two sides also had to share information. The results were pretty impressive: Those deals that were negotiated by groups of students who had been fed would potentially have generated 6.7 million dollars more for the two parties concerned (see Fig. 1).²¹

Of course, students negotiating hypothetical mega-deals over lunch is one thing, but does the provision of food really have any impact over the decisions that are made out there in the real world? The answer to the latter question is a very definite “Yes”. And, some of the most striking evidence in this regard comes from an analysis of court records documenting the decisions made over 50 days covering a 10-month period by highly experienced parole board court judges in Israel. The results provided some pretty stark evidence highlighting the influence of food (or better said, a meal break) on those judges’ parole decisions. Just take a look at Fig. 2. The graph clearly shows that the probability of a parole request being granted declines steadily, not to say dramatically, during the course of a session (from c. 65 % at the start of a session down to 0 % at the end), only to recover after a so-called meal break.²² As one might have expected, such striking results have not gone unchallenged.²³ Nevertheless, under the assumption that the

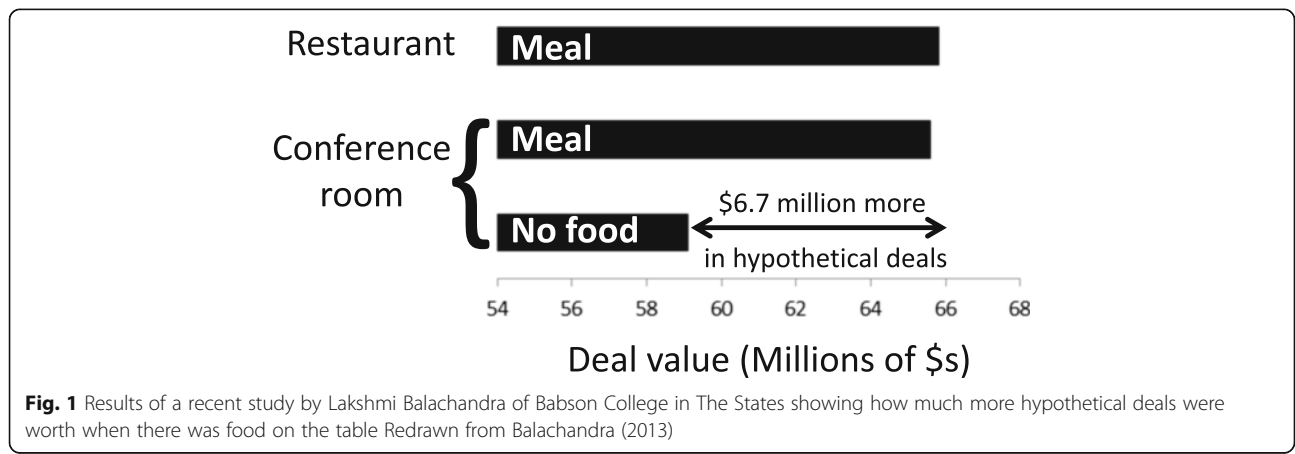


Fig. 1 Results of a recent study by Lakshmi Balachandra of Babson College in The States showing how much more hypothetical deals were worth when there was food on the table Redrawn from Balachandra (2013)

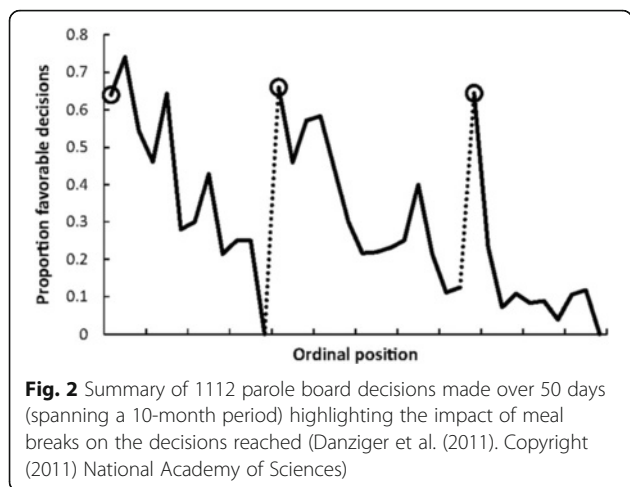


Fig. 2 Summary of 1112 parole board decisions made over 50 days (spanning a 10-month period) highlighting the impact of meal breaks on the decisions reached (Danziger et al. (2011). Copyright (2011) National Academy of Sciences)

judges would mostly have consumed something during their so-called meal breaks, then one would have to say that these results are, at the very least, consistent with the view that food influences our decision-making.²⁴

But does it matter what the food is?

At this point, it is probably worth noting that the nature of the food served is more important to the kind of decisions that are reached than one might have imagined. F. T. Marinetti was certainly cognizant of this possibility: After all, back in the 1930s, the Italian Futurist famously proclaimed that pasta should be banned. Why so? Well, he was worried about it sitting heavy on the nation’s stomach and thus interfering with their capacity to

reason productively and think critically.²⁵ There was a real concern here about how to optimize the decision-making capabilities of this then colonial power.²⁶

Over the last couple of years, researchers have taken a much closer look at *taste* and its influence on human reasoning and behaviour. In particular, they have investigated the gustatory properties of foods, such as sweet, sour, bitter, and salty. For instance, researchers working out of the University of Innsbruck in Austria have demonstrated that people who taste something bitter (think grapefruit juice, beer, dark chocolate, unsweetened black coffee, or, worse still, cruciferous vegetables) tend to show increased hostility toward others.²⁷ They also tend to judge morally objectionable acts more harshly (one presumes therefore that those Israeli judges must have had something of a sweet tooth). By contrast, tasting something sweet tends to make people feel just that little bit more romantic. It apparently also increases the likelihood of someone agreeing to go on a date.²⁸ Here, one might be reminded of the appositeness of those everyday aphorisms such as “A sweet deal”, or its inverse, “The deal soured”.²⁹

In relation to the role of specific tastes on behaviour/ decision-making, it is interesting to examine four of the menus that ex-British prime minister, David Cameron, was served while on his whirlwind tour of European heads of state (see Fig. 3). Notice how three out of the four meals involve strawberries. Perhaps this is nothing more than a seasonal thing, given that the tour took place early in the summer of 2015. Nevertheless, I still think it interesting, since strawberries are one of those

The infographic is titled "MAKING A MEAL OF IT" and "HOW CAMERON ATE BREAKFAST, LUNCH AND DINNER TO WOO EU LEADERS". It features a photo of David Cameron eating at the top right. Below are four columns, each for a European leader with their country's flag and EU star icon:

- Angela Merkel (Germany):** May 29, Berlin. Menu: Lunch of shrimp tartar with salad, followed by veal escalope, asparagus and potatoes, and then strawberries. Helpful: 'Wherever there is a desire there's also a way and this should be our guiding principle here as well. You cannot say that treaty change is a total impossibility.' Unhelpful: 'Is it necessary to change the treaty? Can it be changed via a secondary'
- Francois Hollande (France):** May 28, Paris. Menu: Dinner of lobster tureen followed by turbot, cheese and sorbet. Helpful: 'France wants Great Britain to stay in the European Union.' Unhelpful: Mr Hollande hinted at his frustration that Mr Cameron was refusing to unveil his list of demands by saying the PM would only 'share his proposals when the time comes'. But the country's foreign minis-
- Ewa Kopacz (Poland):** May 29, Warsaw. Menu: Three course breakfast of smoked trout, strawberry salad, Polish cheese from the Tatra mountains, asparagus with poached egg and ham, and cheesecake. Helpful: Downing Street said they 'agreed that there were issues concerning the interaction between free movement and national welfare systems' Unhelpful: She 'strongly opposed measures
- Mark Rutte (Netherlands):** May 28, The Hague. Menu: Lunch of smoked beef with butternut squash, lemon sole with shrimps, tomato and potato and a dessert of strawberries and cream. Helpful: 'My government believes that it's in the EU's interests, the Netherlands' interests and the UK's own interests for the UK to stay in the EU.' Unhelpful: 'As we work for a better Europe,

Fig. 3 Selection of meals eaten by David Cameron, together with other European leaders, while the UK prime minister was trying to build support for EU treaty reform. (Chorley M (2015). Dave’s wine and dine offensive: how Cameron ate his way across Europe to woo leaders ahead of first debate on his plans for EU reform tonight. *Daily Mail Online*, June 25th. <http://www.dailymail.co.uk/news/article-3137642/David-Cameron-use-Brussels-summit-demand-change-status-quo.html>.)

foods that have a distinctively sweet smell. I could well imagine how sweet smells, much like sweet tastes, might promote positive feelings amongst those who dine together.³⁰ And while we are on the topic, ice-cream is another sweet comfort food that one finds being put forward as ideal when it comes to promoting diplomacy.³¹

When thinking about optimizing the aromatic element of a dish, one could certainly do worse than to imitate one of Grant Achatz's classic creations. The famous chef from *Alinea*, and now a number of other Chicago venues, is known for serving certain dishes atop lavender-scented pillows.³² The idea here is that once a bowl of food is placed on the pillow, its weight will slowly release the lavender-scented contents in front of the expectant diner. There is, after all, a large body of research showing that this essential oil (popular in aromatherapy) can have a beneficial effect on people's relaxation and blood pressure.³³

Another idea here for those wanting to ensure that a meeting has the best chances of success would be to encourage the attendees to hold a warm mug or bowl in their hand(s): Think only of a nice hot cup of tea. Social psychologists have shown that those around us tend to look warmer/more approachable whenever we happen to be holding something warm (like a cup or mug).³⁴ And, finally here, should you be having a business meeting with a quarrelsome party, then why not serve some tryptophan-rich foods such as eggs, cheese, pineapple, tofu, shrimps, salmon, turkey, nuts, and seeds. Tryptophan is a dietary precursor of serotonin and increasing the level of the latter in the brain increases agreeableness. No surprises, then, that those who have been fed tryptophan-rich foods tend to be less quarrelsome.³⁵

What does the food we serve/eat say about us?

Over-and-above its role in bonding, mood enhancement, and decision-making, the food we serve/eat, or, in some cases, refuse to serve/eat, can also convey a message about us. Just remember the hams at the start of this article. For those old enough, this notion was one that was played on by the long-running iconic TV adverts for Ferrero Rocher chocolates here in the UK. As the voice-over had it: "The ambassador's receptions are noted in society for their host's exquisite taste that captivates his guests...Monsieur, with Ferrero Rocher you're really spoiling us."³⁶ Intriguingly, several governments, including those of France, Thailand, Peru, and Taiwan have slowly come around to the realization that they may be able to increase their influence abroad by providing their national dishes in foreign countries. This is what some call the exercise of "soft power".³⁷ Gastrodiplomacy—one stomach at a time! Just think about the influence that "Little Italy's" or Chinatowns' in cities around the world may be having.

Relevant here, shortly before the UK Brexit vote, a croissant-wielding French activist group was prevented from distributing croissants to the Brits in the capital in the hope of nudging any swing voters toward the Remain camp. If one was looking for a political slogan to capture this sort of approach, I would guess that it is more a case of "hearts and stomachs" than "hearts and minds"! In fact, according to one commentator: "Gastrodiplomacy is predicated on the notion that the easiest way to win hearts and minds is through the stomach."³⁸ In this instance, though, the British police had other ideas. They rapidly intervened: "telling volunteers from the French capital it would be illegal to offer food in the run-up to an election because it could corrupt the result". And, according to Britain's Electoral Commission: "the efforts of the group, #operationcroissant, violate guidelines banning the use of food to influence votes".³⁹ So, once again, we are back to the ethics of the free lunch!

Unsurprisingly, there is much interest and discussion concerning the foods chosen for EU and G7/G20 meetings. This is an important decision given the many countries involved, and the impression that the food served may give to those who are in attendance.⁴⁰ The ultimate challenge here, though, in terms of gastronomic organization and satisfying national food preferences may well have been at the infamous festivities held by the Shah of Iran in Persepolis back in 1971 to celebrate 2500 years of the Iranian monarchy. Innumerable Heads of State from around the globe flew in for a celebration that reputedly cost close to £140 million. The gastronomic solution in this case involved bringing more than 160 chefs from Paris over especially for the event. The latter came armed with the best French wines and a ton of golden imperial caviar! Not everyone, it should be said, appreciated the invitation. The Queen apparently found the whole thing a little too tacky.⁴¹

Political drinking and dining⁴²

Politicians need to be extremely careful about what they eat, or at least what they are seen to consume in public. If they are not, the gastronomic choices they make can all too easily end up alienating those whom they are trying to connect with, or convince. Without even realizing it, it can highlight a yawning gulf in terms of taste. There is, after all, no surer way of showing that a politician is *different* than by eating the wrong kind of food, or else by ordering something inappropriate. Politicians are often seen eating/drinking something much more sophisticated (and/or expensive) than those whom they represent, or seek to stand for, would ever dream of consuming. One of the classic examples of "what not to do" came from the early days of Sargent Shriver's campaign in the US primaries back in 1972. With the media

following closely in tow, the budding politician went to a small town bar (a working class tavern) to talk to the locals/voters. There he came out with the classic line: “Beer for the boys, and I’ll have a Courvoisier”.⁴³ It should come as little surprise that his campaign hopes soon tanked. This, presumably, just the sort of situation that spin-doctors are paid handsomely these days to help politicians avoid. That said, it is worth noting here that there may be something fundamentally less intimate about sharing a drink than sharing a meal. For, as the anthropologist Mary Douglas once noted in a famous paper entitled: “Deciphering the meal”⁴⁴: “drinks require only mouth-touching utensils which are easily shared, while a hot meal, requiring at least one mouth-entering utensil, suggests a higher level of intimacy”.⁴⁵

Here, it is interesting to contrast Shriver’s alcoholic *faux pas* with the very clear and consistent messaging of Ukip’s Nigel Farage in the recent Brexit campaign in the UK (and, for that matter, in the years that preceded it). The politician was rarely to be seen without a pint of beer in hand (see Fig. 4 for one representative example). The following newspaper quote, I think, captures the situation here perfectly: “The prominence of alcohol in the Farage myth confirms him as king of the populists. On the one hand, it helps elevate him above your run-of-the-mill bores who dominate politics – people so precious about their image that they probably wouldn’t be photographed next to a sherry trifle. By contrast, Nigel is normal and ordinary and – just like you and me – likes to spend an hour or four imbibing something strong.”⁴⁶ Following the changing face of the British government after the Brexit campaign, it was interesting to



Fig. 4 Nigel Farage of Ukip enjoying a pint. Rarely to be seen without one. Is this a case of “alco-diplomacy”—using drink to talk to (or at least connect with) the common man? Figure reprinted from Stanley T (2015). Nigel Farage + a pint = Ukip. That’s the problem. Will the Ukip leader be so popular without his favourite prop? The Telegraph, July 2nd. <http://www.telegraph.co.uk/news/politics/ukip/11325486/Nigel-Farage-a-pint-Ukip-That-s-the-problem.html>

see how the departing remain campaign were portrayed by the British press (see Fig. 5).⁴⁷

Another classic example of what-not-to-do came from one of the on-off cabinet ministers in Margaret Thatcher’s government, back in 1990, during the middle of the “mad cow” disease (BSE) crisis. Before the cameras, John Gummer, then Agriculture minister fed his 4-year old daughter, Cordelia, a beef-burger. While she tucked into her pattie with gusto, he seemed rather to nibble around the bun’s edges (see Fig. 6). No wonder that he was promptly ridiculed by the British press, not to mention a horrified public.⁴⁸

Bob Dole’s list of favourite foods—“hamburgers, fried chicken, chocolate milk shakes, and cherry pie”—would seem entirely appropriate as far as political dining is concerned. How American is that? Middle American, granted, but still sending exactly the right message to the majority of the voters. For as *The New York Times Magazine* noted just before the 2004 US presidential election: “Good political food, ...must be democratic. The barbecue, the clambake, the chili contest, the fish fry, the hamburger cook-out, the pancake social, the fried-chicken potluck, the spaghetti dinner—these are the great entrees of American politics...”⁴⁹ Though, with the aforementioned choices, you would have imagined that Dole would have reached the ultimate political office, no? At least, you would if you took Bunny Crumpacker’s great line here, playing on one of Jean Anthelm Brillat-Savarin’s famous aphorisms: “Tell me what you eat, and I’ll tell you whether or not you’ll win.”⁵⁰ In much the same vein, during the present



Fig. 5 Definitely not talking to “the common man”! With champagne coupes firmly in hand, former Prime Minister David Cameron drinks a toast at a contract signing together with Michael Gove, former Business Secretary Vince Cable (2nd left), and George Osborne. (Oakeshott I (2016). End of the Notting Hill set who felt born to rule: ISABEL OAKESHOTT on Theresa May’s ruthless destruction of Westminster’s social elite. *Daily Mail Online*, July 14th. <http://www.dailymail.co.uk/news/article-3691096/End-Notting-Hill-set-felt-born-rule-ISABEL-OAKESHOTT-Theresa-s-ruthless-destruction-Westminster-s-social-elite.html#ixzz4EX5DHCnR>)



Fig. 6 The agriculture minister John Gummer and his daughter Cordelia eating British beef for the cameras in Suffolk on May 6th, 1990. Look closely, though, and it rather seems like John's meat pattie has somehow managed to slip out of the bottom of his bun! Cordelia, oblivious to the context, is happily tucking in to her burger, no doubt wondering what all the fuss is about. Reprinted from https://www.google.co.jp/search?hl=en&site=img&pbm=isch&source=hp&biw=1366&bih=613&q=john+gummer+burger&oq=john+gummer&gs_l=img.1.1.0l2j0i30k1j0i8i30k112j0i24k115.855.3293.0.5561.11.10.0.1.1.0.175.1225.0j10.10.0...1ac.1.64.img.0.11.1234.3wJzBhjSmsQ#imgrc=F3lQmEGVHMIbtM%3A

presidential campaign, Donald Trump has often taken the opportunity to have himself eating fast food (albeit on his private jet).⁵¹

That the food we are seen with can serve to send such a powerful political message may help to explain one of the earliest examples of “photo-shopping” (see Fig. 7). This is an incendiary image apparently showing F. T. Marinetti tucking into a bowl of pasta. This is the very food that the Italian Futurist had argued ought to be banned in his home country. No wonder that he soon came out with a strident denial—arguing that the image had been faked in order to discredit his position.

What is so special about broccoli?

The examples that we have just come across can all be framed, rightly or wrongly, as reflecting the likes and preferences of the politicians concerned. Or, more likely, as a matter of choosing, through food and drink, to send the right signals to whoever may be watching. However, certain of our food likes/dislikes are genetically determined. For example, roughly 20 % of the population think that coriander/cilantro tastes soapy, and hence avoid it like the plague.⁵² No matter what the spin doctor says, it is unlikely that a politician who finds this herb so unpleasant would ever be convinced to eat any “just for the cameras”. But what, I wonder, would the majority of the public who like the taste of this fragrant herb make of such a cilantro-hating politician anyway? Well, for whatever reason, the topic just has never come up. Presumably, that is because no one would think that it is at all relevant. Who cares whether our politicians



Fig. 7 Just an Italian eating pasta? What is so shocking about that you might well ask?

like cilantro or not? However, the story with regard to bitter dislike is quite different. It is the latter genetic difference in taste perception that has captured the interest of the political commentators.

Roughly a quarter of the population are born with more taste buds on their tongue. These individuals, known as supertasters, are more likely to find certain foods such as coffee, beer, tonic water, and many cruciferous vegetables (such as Brussels sprouts and broccoli) unpleasantly bitter. Others, known as non-tasters, likely have far fewer taste buds on their tongue, and hence will simply not taste the bitterness in the very same foods. Roughly $\frac{1}{4}$ of the population are supertasters, $\frac{1}{4}$ non-tasters, and the remaining 50 % are medium tasters, lying somewhere in the middle. Medium tasters can perceive the bitterness but do not find it too unpleasant.⁵³

In a quote that was widely reported by the press in the USA, George Bush senior came out with the line that: “I do not like broccoli, and I haven’t liked it since I was a little kid and my mother made me eat it. And I’m president of the United States, and I’m not going to eat any more broccoli.”⁵⁴ In fact, banning broccoli from the presidential jet, Air Force One, was apparently one of his first decisions on being voted into office. Bush senior is likely to be a

supertaster, as they often find broccoli unpleasantly bitter. Given that taster status runs in families, it should come as little surprise to find that George W. Bush was not a fan of “the persecuted crucifer” either. The latter fabulous phrase how *The New York Times* columnist Frank Bruni so memorably christened the much maligned green vegetable.⁵⁵ Interestingly, and in stark contrast, when asked by a group of school children what his favourite food was, Barack Obama’s instantaneous reply was “broccoli”.⁵⁶ Intriguingly, if one goes back to the early 1930s, one finds the proposal that a person’s taster status might actually correlate with their political leanings (see Fig. 8).

Cilantro and cruciferous vegetables, though, are just the tip of the iceberg as far as genetically determined differences in taste are concerned. So, my question is, given the wide range of food likes/dislikes that people have (many of which are genetically-determined), why it is broccoli, or more generally, bitter-tasting foods, that have acted as such a beacon for presidential food preferences? Could it perhaps be that a sensitivity to bitterness actually signals something far more interesting about the personality of the individuals concerned than merely the particular taste world that they live in? Surprising though it may sound, supertasters (those who may well avoid cruciferous vegetables because of their exceedingly bitter taste) tend to be more likely to exhibit certain anti-social personality traits. Or, as one commentator summarizing a recently published study so succinctly put it: “bitter taste preferences were a reliable predictor

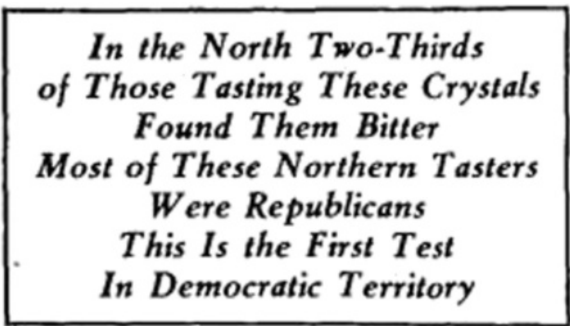
of Machiavellianism, psychopathy, narcissism, and everyday sadism.”⁵⁷

Gastro-warfare

I am not quite sure if this is the best title for what is coming next. Nevertheless, there are also those out there who are interested in using the provision or, more often, the denial of food as a political tool to interfere with the other side’s negotiating ability. Just take the advice given on one website: “Control what is eaten and what people drink in order to subvert and weaken their minds and bodies, reducing their ability to make good decisions.”⁵⁸ This particular website goes on to suggest everything from making food a reward by, for example, linking breaks to agreements through to preventing those you are negotiating with from taking a food break until you get what you want. Alternatively, why not demand a food or refreshment break in order to disrupt the other side’s deliberations, or else ply them with caffeine to make them agitated? Delaying lunch is apparently another useful technique here as it means that the other side will likely get hungry and will thus probably find it harder to concentrate effectively.⁵⁹ (Though, if you are planning to follow the website’s advice, probably best make sure you yourself have had a hearty breakfast.) And then, as Marinetti knew only too well, when the food does eventually come, why not offer the other side some heavy stodgy food if you want to make them sleepy?

Remember “the freedom fry”? Sometimes, people have chosen not to eat a particular dish, or else to rename a food, in order to vent their anger with another nation. One of the most famous examples here was when the North American House of Representatives renamed the “French Fry” the “Freedom Fry” to express their unhappiness around the French government’s lack of support for the Iraq war back in 2003. French toast, it should be noted, did not escape unscathed either, being rebranded Freedom toast.⁶⁰

And finally here, it is perhaps worth considering that over the course of history, some politicians and leaders have been convinced that their opponents might well want to take the idea of gastro-warfare to the next level and try to poison them with the food that they have been offered. Currently, there are those leaders like Vladimir Putin who reputedly never travel anywhere without taking their own personal taster along. Their role, to make sure that the food he has been served has not been poisoned. Of course, Putin is by no means the first to employ such precautions. Go back two millennia and one finds that: “Roman emperors employed trusted slaves to be their praegustator, not always effectively (when Claudius died after being given poisoned mushrooms



*In the North Two-Thirds
of Those Tasting These Crystals
Found Them Bitter
Most of These Northern Tasters
Were Republicans
This Is the First Test
In Democratic Territory*

Fig. 8 One of the signs presented at the 1931 meeting of the American Association for the Advancement of Science held in New Orleans. The poster relates to people’s differing sensitivity to bitter-tasting PTC crystals (these differences had just been discovered by scientists). The idea that Republicans would be more likely to be supertasters certainly fits with the president Bushes well-publicized dislike of bitter-tasting cruciferous vegetables such as broccoli. Obama, by contrast, is a Democrat and loves broccoli! (Though, as far as I can tell, this was just a playful suggestion rather than a claim based on any kind of evidential basis; see Blakeslee AF, Fox AL (1932). Our different taste worlds: P. T. C. as a demonstration of genetic differences in taste. *Journal of Heredity*, 23, 97-107; Spence C (2013). The supertaster who researches supertasters. *The BPS Research Digest*, <http://www.bps-research-digest.blogspot.co.uk/2013/10/day-4-of-digest-super-week-supertaster.html>.)

in 54BC, his taster Halotus was fingered as a suspect).⁶¹ And more recently, one finds the wife of Nick Clegg, former deputy prime minister here in England, suggesting that she would serve her “favourite” political guests an especially fiery dish just so she could watch them splutter.⁶² Of course, given the evidence reported here, one should not be surprised if international discussions do not go so well, when those involved demand food that is different from those whom they are negotiating with. Just remember the tip about eating the same food in order to facilitate negotiation.⁶³

Conclusions

Gastronomy—a neglected factor in diplomacy, decision-making, and innovation

Put all the evidence together, then, and it soon becomes clear that the food we eat affects the decisions we make. Though, as we have also seen, there are many potential routes by which such effects may occur: Everything from the release of glucose and serotonin as a direct result of what we consume (i.e., sugar- and tryptophan-rich foods). Eating together with others can also trigger the release of endorphins. Even the very act of mastication may give rise to the release of serotonin and so improve mood. And then, there is the mimicry that may occur when we eat and drink with others; this too is known to promote pro-social behaviour.⁶⁴ Therefore, it would seem sensible to give more careful consideration to the food that one serves when involved in any kind of negotiation/decision-making. Many of those companies that started out in Silicon Valley certainly believe that the appropriate provision of food can really pay off. But, I hear you ask, is there any evidence that politicians out there are actually starting to take any of these findings seriously? Well, Hillary Clinton is certainly interested. For, as Secretary of State, she ushered in a whole new approach to the provision of food, as a part of what she terms “smart diplomacy”. Indeed, as Natalie Jones, a deputy chief of protocol in the US Government put it: “food is crucial “because tough negotiations take place at the dining table.”⁶⁵

Once the importance of food to decision-making is recognized, not just in the diplomatic setting but rather in *any* situation that involves decision-making, negotiation, and presumably also innovation (basically any kind of business meeting), then one might think also about the most appropriate space in which to eat and drink while holding one’s meeting.⁶⁶ Everything from the height of the ceiling through the size and shape of the tables that one sits at can make a difference. In fact, one of the things that you might well notice if you were to visit the canteens at the tech companies like *Google* that we came across earlier is that they tend to be filled with

large tables. This is not accidental. They have been deliberately chosen to encourage mingling and accidental meeting of employees. Large tables are obviously much better for this purpose than small tables for one or two.⁶⁷ Another tip for those wishing to practice smart design/smart diplomacy is to sit everyone at a round table. Ever since the Tholos dining chamber was built in the Agora back in 465 BC, the political symbolism of the round table (implying equality and friendship) has been well understood.⁶⁸ Just think here of King Arthur and his Knights of the Round Table, not to mention the tradition of the round Chinese banqueting table. And intriguingly, the latest research shows that round tables tend to foster more collaborative decision-making as compared to square or rectangular tables too. And bizarre though it may sound, even the height of the ceiling can affect the way that we think.⁶⁹

Think about it carefully, then, and it soon becomes clear just how much more can be done to use gastronomy and smart design in order to facilitate the kind of outcome one wants from those we deal with, no matter what the outcome we may desire.

Endnotes

¹Pita A (2014). Spain decides to make up for its persecution of Jews—but will not do the same for Muslims. *The Week*, June 30th. <http://theweek.com/articles/445777/spain-decides-make-persecution-jews-but-wont-same-muslims>.

²Note that “gastrodiplomacy”, or culinary diplomacy, should be distinguished from the similar-sounding “food politics”; the latter, the name given to the study of the politics of decision-making around the foods that we eat and how/whether they can be marketed/advertised; e.g., see Nestle M (2013). *Food politics: how the food industry influences nutrition and health*. London, UK: University of California Press. The term gastro-diplomacy first appeared in an article back in 2002; Anon. (2002). Food as ambassador: Thailand’s gastro-diplomacy. *The Economist*, February 1st. <http://www.economist.com/node/999687>. Some have also wanted to distinguish between gastrodiplomacy and culinary diplomacy. Just take the following: “When a nation-state decides to combine food with its Public Diplomacy strategy, the outcome is Gastro Diplomacy. The concept is ancient, but the terminology is relatively new. As gastronomist Paul Rockower (2011) aptly explains, Gastro Diplomacy is “the act of winning hearts and minds through stomachs”. Culinary diplomacy, on the other hand, as Sam Chapple-Sokol from the Fletcher School of Law and Diplomacy, notes, is “the use of food and cuisine as an instrument to create a cross-cultural understanding in the hopes of improving interactions and cooperation” at a higher, government-to-government level, as opposed to government-to-the-

public level (Rockower, 2011).” Quote from Nirwandy N, Awang AA (2014, p. 328). Conceptualizing public diplomacy social convention culinary: engaging gastrodiplo-macy warfare for economic branding. *Procedia—Social and Behavioral Sciences*, 130, 325–332. Though, that said, many people, including myself, use the terms gastrodiplo-macy and culinary diplomacy interchangeably; see https://en.wikipedia.org/wiki/Culinary_diplomacy. And for a wide selection of recent papers on gastrodiplo-macy, see the special issue of *Public Diplomacy Magazine* (Issue 11, Winter, 2014) on Gastrodiplo-macy.

³Jones M (2008). *Feast: why humans share food*. Oxford, UK: Oxford University Press; Munro ND, Grosman L (2010). Early evidence (ca. 12,000 B.P.) for feasting at a burial cave in Israel. *Proceedings of the National Academy of Sciences of the USA*, 107, 15362–15366; see also De Vooght D (Ed.). (2011). *Royal taste: food, power and status at the European Courts after 1789*. Burlington, VT: Ashgate Publishing; Dietler, M., & Hayden, B. (Eds.). (2001) *Feasts: archaeological and ethnographic perspectives on food, politics, and power*. Washington, DC: Smithsonian Institution Press; Hayden B (1996). Feasting in prehistoric and traditional societies. In P Wiessner, W Schiefenhovel (Eds.), *Food and the status quest: an interdisciplinary perspective* (pp. 127–147). Oxford, UK: Berghahn.

⁴Fischler C (2011). Commensality, society and culture. *Social Science Information*, 50, 528–548.

⁵Quoted in Davey K (2016). One in three people go a week without eating a meal with someone else. Oxford University professor finds. *Oxford Mail*, April 13th. http://www.oxfordmail.co.uk/news/14422266.One_in_three_people_go_a_week_without_eating_a_meal_with_someone_else_Oxford_University_professor_finds/. Endorphins are neurotransmitters that act as an analgesic and affect our mood and emotions; Camille Rumani, co-founder of *VisEat* says that: “The table is the original social network.” Quoted in Rumbelow H (2015). Tired of takeaways? Try supper in a stranger’s home with the Airbnb of dining. *The Times (Times2)*, November 19th, 6–7; Presumably, given its long-standing occurrence, we will ultimately need a neuro-psycho-pharmacological explanation for what may be going on in the brains of those who eat together.

⁶Steel (2008).

⁷Rozin P, Fischler C, Imada S, Sarubin A, Wrzesniewski A (1999). Attitudes to food and the role of food in life in the U.S.A., Japan, Flemish Belgium and France: possible implications for the diet–health debate. *Appetite*, 33, 163–180; see also Woolley & Fishbach (in press).

⁸Brillat-Savarin JA (1835, p. 2). *Physiologie du goût [The philosopher in the kitchen/The physiology of taste]*. J. P. Meline: Bruxelles. Translated by A Lalauze (1884),

A handbook of gastronomy. London, UK: Nimmo & Bain. This great quote picked up by Steel, C. (2008, p. 220). *Hungry city: how food shapes our lives*. London, UK: Chatto & Windus.

⁹McCout P (2014, p. 3). The Futurists declare war on pasta. *Journal of Art in Society*. <http://www.artinsociety.com/the-futurists-declare-war-on-pasta.html>.

¹⁰The participants in this study were supposed to log any meeting that lasted over 5 min over a 3-week period by filling in a form shortly after each interaction. Of the 1000 or so meetings recorded by those who took part in this study, around 20 % took place over a meal. On these occasions, people felt happier and more relaxed (at least according to their own self-report)—they were also more likely to cooperate with one another. Importantly, these beneficial effects were seen no matter whether the meeting took place at home, at work, or somewhere elsewhere. The improvement in mood was somewhat more pronounced in women than in men; see aan het Rot M, Moskowitz DS, Hsu ZY, Young SN. (2015). Eating a meal is associated with elevations in agreeableness and reductions in dominance and submissiveness. *Physiology & Behavior*, 144, 103–109.

¹¹One sees the commentators reaching for some brain-based explanation for what may be going on to explain the enhanced mood etc. while we eat. One intriguing suggestion here being that chewing might raise the levels of the “feel-good” brain chemical serotonin; see also Dobson R, Macrae F (2015). Why meals make tricky topics easier to digest: Study finds people get on better with each other when they eat together. *Daily Mail Online*, April 14th. <http://www.dailymail.co.uk/news/article-3039054/Why-meals-make-tricky-topics-easier-digest-Study-finds-people-better-eat-together.html>. In fact, there is evidence (in rats at least) that chewing can lead to the release of the neurotransmitter serotonin; see Rueter LE, Fornal CA, Jacobs BL (1997). A critical review of 5-HT brain microdialysis and behaviour. *Review Neuroscience*, 8, 117–137.

¹²The effect of conditioning was most pronounced for ratings of personal approval and literary value, while ratings of social effectiveness showed the smallest changes. The participants themselves could not remember which of the statements had been presented while they were chowing down on their free lunch; see Razran GHS (1940). Conditioned response changes in rating and appraising sociopolitical slogans. *Psychological Bulletin*, 37, 481. For some reason, this is often referred to as a 1938 paper. In fact, the abstract of this conference presentation was actually published in 1940.

¹³Note that in Russia and Japan, for instance, important business deals are nearly always conducted while dining and drinking; see Balachandra L (2013). Should you eat while you negotiate? *Harvard Business Review*,

January 29th. <https://hbr.org/2013/01/should-you-eat-while-you-negot/>; see also Govan E, Rebellato D (1999, p. 38). Foodscares! *Performance Research*, 4, 31–41.

¹⁴Halvorson PJ, Rudelius W (1977). Is there a free lunch? Assessing the luncheon meeting between sales representatives and buyers. *Journal of Marketing*, January, 44–49; see also Anon. (1974). How top executives spend their lunch hours. *Business Week*, August 17th, 81; Farrell PV (1965). Eats, ethics, and economics. *Purchasing*, December 2nd, 5; Anon. (1972). Does breaking bread break the rules? *Purchasing*, October 24th, 57. Note here though that the business lunch certainly is not a recent invention, as pointed out by Carolyn Steel (2008, pp. 226–230), the tavern has been an important institution for business lunches (and drinking) in London for centuries.

¹⁵Quotes from Bryce A (2016). Want to impress your fellow diner? Just order the same dish. *The Times*, July 4th, 13; see also Akst D (2016). Want to build trust? Order the same food: Researchers found that when people see each other eat the same thing, they are quicker to negotiate agreements. *The Wall Street Journal*, July 14th. <http://www.wsj.com/articles/want-to-build-trust-order-the-same-food-1468508945?ftcamp=crm/email/nbe/FirstFTEurope/product>; Woolley K, Fishbach A (2016). A recipe for friendship: similar food consumption promotes trust and cooperation. *Journal of Consumer Psychology*. Around 500 people were tested across four studies. The research documented increased trust: Specifically, those who imagined themselves as an investor in a game of trust were more generous to their fund manager while, in a second experiment, enhanced conflict resolution was documented in a labour negotiation. Importantly, this led to the two parties earning more money.

¹⁶Stern C (2016). The ULTIMATE working lunch: inside the envy-inducing canteens at companies like Dropbox, Google and Pixar that offer free food, extensive menus, and gourmet desserts. *Daily Mail Online*, March 3rd. <http://www.dailymail.co.uk/femail/article-3473854/The-ULTIMATE-working-lunch-Inside-envy-inducing-canteens-companies-like-Dropbox-Google-Pixar-offer-free-food-extensive-menus-gourmet-desserts.html>; see also Guynn J (2012, October). Yahoo CEO gives stock a big boost. The firm's shares rise 5 % after Marissa Mayer outlines her vision for a comeback. *Los Angeles Times*, B2; Levy S (2011). *In the plex: how Google thinks, works, and shapes our lives*. New York, NY: Simon and Schuster.

¹⁷Bock L (2015). *Work rules: insights from inside Google that will transform how you live and lead*. New York, NY: Twelve; Quote from Burkus D (2015). The real reason Google serves all that free food. *Forbes Magazine*, July 2nd. <http://www.forbes.com/sites/>

davidburkus/2015/07/02/the-real-reason-google-serves-all-that-free-food/#7e426b603e3b.

¹⁸This research showed a significant positive association between commensality and work-group performance in the case of fire-fighters within fire houses in a large US city; see Kniffin KM, Wansink B, Devine CM, Sobal J (2015). Eating together at the firehouse: how workplace commensality relates to the performance of firefighters. *Human Performance*, 28, 281–306.

¹⁹"In a society that encourages brainstorming, group dynamics, "crowd-sourcing," and other collaborative systems, Cain makes a persuasive argument that solitude is a crucial ingredient for creativity to flourish." Quoted in Gallo C (2014). *Talk like TED: the 9 public speaking secrets of the world's top minds*. London, UK: Macmillan; see also Cain S (2012, p. 122). *Quiet: the power of introverts in a world that can't stop talking*. New York, NY: Penguin Books.

²⁰Ariely D (2016). *Payoff: the hidden logic that shapes our motivations*. New York, NY: Simon & Schuster/TED; Enoch N (2016). Giving workers pizza is a better way to motivate them than paying them more money (but a word of praise is best of all). *Daily Mail Online*, September 1st. <http://www.dailymail.co.uk/news/article-3768449/Free-pizza-better-way-motivate-workers-paying-money-word-praise-best-all.html#ixzz4LXMuHwQ8>.

²¹The students either ate in a restaurant or else were provided with food in a conference room. A 12 % increase in hypothetical profits was documented in the restaurant setting as compared to an 11 % increase in a business conference room when food was brought in. Importantly, a control study (involving a further 45 MBA students) demonstrated that it was the sharing of a meal, rather than sharing in some other task, such as completing a jigsaw together, that led to increased profitability. Interestingly, though, the level of trust between the parties did not increase as a function of eating together (see Balachandra, 2013), an alternative explanation for the increased cooperation between the parties could be that eating together increases the level of mimicry, and the latter is known to increase pro-social behaviour, e.g., Maddux WW, Mullen E, Galinsky AD (2008). Chameleons bake bigger pies and take bigger pieces: strategic behavioral mimicry facilitates negotiation outcomes. *Journal of Experimental Social Psychology*, 44, 461–468; Swaab RL, Maddux WW, Sinaceur M (2011). Early words that work: when and how virtual linguistic mimicry facilitates negotiation outcomes. *Journal of Experimental Social Psychology*, 47, 616–621; van Baaren RB, Holland RW, Kawakami K, van Knippenberg A (2004). Mimicry and prosocial behavior. *Psychological Science*, 15, 71–74. Then again, perhaps it is the release of glucose triggered by consumption that enhanced the students' ability to engage in complex cerebral activities;

see Gailliot MT, Baumeister RF (2007). The physiology of willpower: linking blood glucose to self-control. *Personality & Social Psychology Review*, 11, 303–327; Hagger MS, Wood C, Stiff C, Chatzisarantis NLD (2010). Ego depletion and the strength model of self-control: a meta-analysis. *Psychological Bulletin*, 136, 495–525; see also Bushman BJ, DeWall CN, Pond RS, Hanus MD. (2014). Low glucose relates to greater aggression in married couples. *Proceedings of the National Academy of Sciences of the USA*, 111, 6254–6257.

²²In this case, the judges had an average of more than 20 years of experience each; Danziger S, Levav J, Avnaim-Pesso L (2011). Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences of the USA*, 108, 6889–6892. These results indicate that there may be more than a grain of truth to the suggestion made in one article that: “It is popular in some circles to suppose that judicial decision making can be explained largely by frivolous factors, perhaps for example the relationship between what judges eat and what they decide.”; Kozinski A (1993, p. 993). What I ate for breakfast and other mysteries of judicial decision making. *Loyola of Los Angeles Law Review*, 26, 993–999.

²³Weinshall-Margel K, Shapard J (2011). Overlooked factors in the analysis of parole decisions. *Proceedings of the National Academy of Sciences of the USA*, 108, E833; Danziger S, Levav J, Avnaim-Pesso L (2011). Reply to Weinshall-Margel and Shapard: extraneous factors in judicial decisions persist. *Proceedings of the National Academy of Sciences of the USA*, 108, E834. And, as a prisoner, you would probably want to hope that they have not had something bitter-tasting on their break; see Chapman HA, Kim DA, Susskind JM, Anderson AK (2009). In bad taste: evidence for the oral origins of moral disgust. *Science*, 323, 1222–1226; Eskine KJ, Kacirik NA, Prinz JJ (2011). A bad taste in the mouth: gustatory disgust influences moral judgment. *Psychological Science*, 22, 295–299; Rozin P, Haidt J, Fincher K (2009). From oral to moral. *Science*, 323, 1179–1180.

²⁴Sometimes, of course, the business meeting may be the opportunity to convey some rather less positive news, like “You’re fired”. There is a great line on this from the world of journalism on this topic: “He thought the manner in which a person is sacked was important. It wouldn’t do to be sacked over a ham sandwich in a pub.” Quoted in Fay S (2000). Breakfast at Claridge’s: getting the sack. In S Glover (Ed.), *The Penguin book of journalism: secrets of the press* (pp. 237–247). London, UK: Penguin.

²⁵That was not all though. He also objected to the fact that pasta “is swallowed, not masticated”. Darrah D (1931). Futurist’s idea on food finds Italy contrary.

Chicago Daily Tribune, December 11th; Higgins HB (2013, pp. 40–47). Schlurrrp!: the case for and against spaghetti. In S Smith (Ed.), *Feast: radical hospitality in contemporary art* (pp. 66–75). Chicago: IL: Smart Museum of Art; McCouat (2014, p. 4); Golan R (2003). Ingestion/Anti-pasta. *Cabinet*, 10, 1–5; see also Smith A, Leekam S, Ralph A, McNeill G (1988). The influence of meal composition on post lunch changes in performance efficiency and mood. *Appetite*, 10, 195–203.

²⁶Note also that the food of the colonies—dates, bananas, coffee, etc. also played a central role in Futurist cuisine; see Marinetti FT (1930). *The Futurist cookbook* (translated by S Brill). Bedford Arts, San Francisco (republished 1989).

²⁷Sagioglou C, Greitemeyer T (2014). Bitter taste causes hostility. *Personality and Social Psychology Bulletin*, 40, 1589–1597.

²⁸Zaraska M (2016). Eating something sweet can lead to a romantic date. *The Washington Post*, March 28th. https://www.washingtonpost.com/national/health-science/eating-something-sweet-can-make-you-more-willing-to-go-on-a-date/2016/03/28/4eac2c28-d0f8-11e5-88cd-753e80cd29ad_story.html.

²⁹The latter being a colloquial phrase used to describe what happens when a deal goes wrong.

³⁰Macrae F (2014). Strawberries are the happiest fruit: summer favourite is so powerful that just thinking about one makes us feel better. *Daily Mail Online*, June 18th. <http://www.dailymail.co.uk/news/article-2660712/Strawberries-happiest-fruit-Summer-favourite-powerful-just-thinking-one-makes-feel-better.html>; Frank RA, Ducheny K, Mize SJS (1989). Strawberry odor, but not red color, enhances the sweetness of sucrose solutions. *Chemical Senses*, 14, 371–377; Stevenson RJ, Boakes RA (2004). Sweet and sour smells: learned synaesthesia between the senses of taste and smell. In GA Calvert, C Spence, BE Stein (Eds.), *The handbook of multisensory processing* (pp. 69–83). Cambridge, MA: MIT Press. Notice here also how sweet smells increase people’s tolerance for pain; see Prescott J, Wilkie J (2007). Pain tolerance selectively increased by a sweet-smelling odor. *Psychological Science*, 18, 308–311.

³¹“I don’t know much about international diplomacy, but I do have a sneaking suspicion that it probably doesn’t make enough use of ice cream. There’s something innocently joyful about the stuff – how can anyone be angry when holding a double cone with a flake on top?” Quote from Cloake F (2010). How to make perfect ice cream. *The Guardian*, June 17th. <https://www.theguardian.com/lifeandstyle/wordofmouth/2010/jun/17/how-to-make-ice-cream>; Winston Churchill, apparently, much preferred to finish his meals with ice-cream rather than fruit; Though, of US president Richard Nixon’s favourite

snack—cottage cheese and pineapple smothered in ketchup—the less said the better! Mentioned in Crumpacker B (2008, Chapter 14). *The sex life of food: when body and soul meet to eat*. New York, NY: Thomas Dunne Books. There you can find an intriguing summary of US presidential gastronomic peccadillos; see also Cattle S (2013). Eating habits of world leaders: the culinary tastes of the people in charge are long a subject of intrigue. Here are the dishes world leaders have loved—and hated—to have on their plates. *The Daily Telegraph*, October 18th. <http://www.telegraph.co.uk/news/worldnews/europe/france/10388197/Eating-habits-of-world-leaders.html>.

³²Spence C (2016). Enhancing the experience through smell. *Journal of the Institute of Food Science and Technology*, 30, 32–35; Spence C, Piqueras-Fiszman B (2014). *The perfect meal: the multisensory science of food and dining*. Oxford, UK: Wiley-Blackwell.

³³Spence C (2002). *The ICI report on the secret of the senses*. London, UK: The Communication Group; Spence C (2003). A new multisensory approach to health and well-being. *In Essence*, 2, 16–22; Sayorwan W, Siripornpanich V, Piriyaupunaporn T, Hongratanaworakit T, Kotchabhakdi N, Ruangrunsi N (2012). The effects of lavender oil inhalation on emotional states, autonomic nervous system, and brain electrical activity. *Journal of the Medical Association of Thailand*, 95, 598–606.

³⁴Williams LE, Bargh JA (2008). Experiencing physical warmth promotes interpersonal warmth. *Science*, 322, 606–607.

³⁵aan het Rot M, Moskowitz DS, Pinard G, Young SN (2006). Social behaviour and mood in everyday life: the effects of tryptophan in quarrelsome individuals. *Journal of Psychiatry & Neuroscience*, 31, 253–262; Moskowitz DS, Pinard G, Zuroff DC, Annable L, Young SN (2001). The effect of tryptophan on social interaction in everyday life: a placebo-controlled study. *Neuropsychopharmacology*, 25, 277–289.

³⁶https://en.wikipedia.org/wiki/Ferrero_Rocher; Cook W (2000). Eurochoc. Advertising—William Cook mourns the demise of the Ferrero Rocher commercial. *New Statesman*, February, 14th. <http://web.archive.org/web/20071021044421/http://newstatesman.com/200002140044>; Crowther J (2011). You're spoiling us, Mr Ambassador! That laughable Ferrero Rocher advert wasn't a joke at all—it was the Italians' idea of style and class. *Daily Mail Online*, April 23rd. <http://www.dailymail.co.uk/femail/article-1379948/Youre-spoiling-Mr-Ambassador-And-making-chocolates-laughing-stock-That-Ferrero-Rocher-advert-wasnt-joke-Italians-idea-style-class.html>; Wood Z (2009). Family behind Ferrero Rocher linked to deal with Cadbury. Trays at the ambassador's reception may soon be piled high with Creme Eggs if “friendly alliance” goes ahead. *The Guardian*, November 17th.

<http://www.theguardian.com/business/2009/nov/17/ferrero-rocher-cadbury-deal-alliance>.

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⁴³Quoted in Crumpacker (2008, Chapter 14).

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⁵⁷Almost 1000 North Americans were given standard personality and taste-preference questionnaires. The

results showed that those who enjoyed bitter foods, such as grapefruit, tonic water, coffee, and radishes: “were more likely to admit that they enjoyed tormenting people or that they tend to manipulate others to get their way. “And these effects are not tiny, either,” says Austrian psychologist Christina Sagioglou, the study’s lead author.” Quote from Zaraska (2016); Sagioglou C, Greitemeyer T (in press). Individual differences in bitter taste preferences are associated with antisocial personality traits. *Appetite*; Sims A (2015). How you drink your coffee ‘could point to psychopathic tendencies’. *The Independent*, October 10th. <http://www.independent.co.uk/news/science/psychopathic-people-are-more-likely-to-prefer-bitter-foods-according-to-new-study-a6688971.html>; Freeman S (2015). Like coffee or a gin and tonic? You could be a psychopath: people with dark personalities prefer bitter foods and drinks. *Daily Mail Online*, October 9th. <http://www.dailymail.co.uk/science/tech/article-3266083/Like-coffee-gin-tonic-probably-psychopath-Bitter-foods-drinks-1.html>; see also Herz RS (2011). PROP taste sensitivity is related to visceral but not moral disgust. *Chemosensory Perception*, 4, 72–79; Macht M, Mueller J (2007). Increased negative emotional responses in PROP supertasters. *Physiology & Behavior*, 90, 466–472; Mascie-Taylor CGN, McManus IC, MacLarnon AM, Lanigan PM (1983). The association between phenylthiocarbamide (PTC) tasting ability and psychometric variables. *Behavior Genetics*, 13, 191–196; Meier BP, Moeller SK, Riemer-Peltz M, Robinson MD (2012). Sweet taste preferences and experiences predict prosocial inferences, personalities, and behaviors. *Journal of Personality and Social Psychology*, 102, 163–174.

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⁶⁰In 2003, when France opposed going to war in Iraq, the U.S. took the next logical step: its House of Representatives’ cafeterias stopped serving French fries. They served “freedom fries” instead. Naturally, “French toast” became “freedom toast” as well.” Quoted in Silver A (2011). French fries to “Freedom” fries. *Time*, March 28th. http://content.time.com/time/specials/packages/article/0,28804,2061530_2061531_2061545,00.html.

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⁶²Cahalan P (2016). Nick Clegg’s wife launches her Spanish cookbook with a wicked confession: my recipe for revenge? Feed the Tories red hot peppers and watch them splutter! *Daily Mail Online*, July 24th. <http://www.dailymail.co.uk/news/article-3705239/Nick-Clegg-s-wife-launches-Spanish-cookbook-wicked-confession-recipe-re>

[venge-Feed-Tories-red-hot-peppers-watch-splutter.html#ixzz4FLu5mrSO](http://www.dailymail.co.uk/news/article-3705239/Nick-Clegg-s-wife-launches-Spanish-cookbook-wicked-confession-recipe-revenge-Feed-Tories-red-hot-peppers-watch-splutter.html#ixzz4FLu5mrSO).

⁶³Soolley & Fishbach (2016).

⁶⁴Shellenbarger S (2016). Use mirroring to connect with others: adopting the same gestures, posture or tone can enhance bonding and help with networking or negotiating—but be subtle about it. *The Wall Street Journal*, September 20th. <http://www.wsj.com/articles/use-mirroring-to-connect-with-others-1474394329>

⁶⁵According to Mrs. Clinton: “The meals that I share with my counterparts at home and abroad cultivate a stronger cultural understanding between countries and offer a unique setting to enhance the formal diplomacy we conduct every day.”; All quotes from Burros M (2012). Diplomacy travels on its stomach, too. *The New York Times*, July 2nd, D3. http://www.nytimes.com/2012/07/04/dining/secretary-of-state-transforms-the-diplomatic-menu.html?_r=0; see also Dobson & Macrae (2015) for evidence that the psychologists now agree that tricky topics might be best tackled over a meal.

⁶⁶I do not want to tell you how many innovation workshops that I have been to over the years where one finds oneself stuck in some windowless basement in an anonymous hotel, with utterly uninspired catering. Thinking about the design of the space, a growing realization of the importance of providing good food can also be seen to have permeated the next generation of technology workspaces, e.g., see Hart A (2015). Brain food: forget the office canteen, London’s next-generation tech workspaces have stylish in-house restaurants we can all enjoy. *The Evening Standard (Magazine)*, October 30th, 66; see also Torrisi AI (2006). Places and spaces: in the mood. *Successful Meetings*, 55, 89–91.

⁶⁷Spence C (in press). *Gastrophysics*. London, UK: Penguin.

⁶⁸As Carolyn Steel (2008, p. 220) notes in her fabulous book *Hungry City*: “For the lawmaker Solon, the symbolism of the table made it a natural tool with which to shape Athenian democracy, and he bade the standing committee dine regularly together in public to express their equality.” In fact, the Tholos was the only round building on the Agora site.

⁶⁹Zhu R(J), Argo JJ (2013). Exploring the impact of various shaped seating arrangements on persuasion. *Journal of Consumer Research*, 40, 336–349. And why stop with the shape of the table. Sit people in a high-ceilinged room and you can encourage relational information-processing, whereas more item-specific reasoning is seen in low-ceilinged rooms; see Meyers-Levy J, Zhu R (2007). The influence of ceiling height: the effect of priming on the type of processing that people use. *Journal of Consumer Research*, 34, 174–186; see also Hall ET (1966). *The hidden dimension: man’s use of*

space in public and private. London, UK: Bodley Head; However, before getting too excited here, it is perhaps worth bearing in mind that not all of the social psychologists' findings have stood up all that well to attempts at replication, e.g., Steele KM (2014). Failure to replicate the Mehta and Zhu (2009) color-priming effect on anagram solution times. *Psychonomic Bulletin & Review*, 21, 771–776; Doyen S, Klein O, Pichon C, Cleeremans A (2012). Behavioural priming: it's all in the mind, but whose mind? *PLoS One*, 7, 1:e29081; Francis G (2014). The frequency of excess success for articles in Psychological Science. *Psychonomic Bulletin & Review*, 21, 1180–1187; Yong E (2012). A failed replication draws a scathing personal attack from a psychology professor. *Discover Magazine*, March 12th. <http://blogs.discovermagazine.com/notrocketscience/2012/03/10/failed-replication-bargh-psychology-study-doyen/#.V4rUZfkrLIU>; Baker M (2016). Psychology's reproducibility problem is exaggerated—say psychologists: reanalysis of last year's enormous replication study argues that there is no need to be so pessimistic. *Nature*, March 3rd. <http://www.nature.com/news/psychology-s-reproducibility-problem-is-exaggerated-say-psychologists-1.19498>.

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