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2 RUNNING HEAD: CONTEMPORARY FUSION FOODS

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Contemporary fusion foods:

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How are they to be defined, and when do they succeed/fail?

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ABSTRACT

23

24 Fusion cuisine is all the rage these days, but how, exactly, should it be defined? One might all
25 too easily think of it as an exclusively contemporary phenomenon, given fusion cuisine's
26 current popularity in the food media. However, take a suitably long-term view, and it soon
27 becomes clear that most of the foods that we eat today actually represent a fusion of ingredients,
28 flavours, components, recipes, styles, and/or food philosophies. That said, there would appear
29 to be a widespread contemporary interest in fusion foods, especially amongst food marketers
30 and the consuming public at large. The latter's 'hunger' for the many putatively new fusion
31 foods introduced into the food marketplace in recent years can perhaps be framed within a
32 broader interest in all things novel, and experimental, in the world of cuisine these days. That
33 said, it is important to note that coming up with genuinely new fusion food products, or dishes,
34 is not as easy as it might at first seem, in part, for the reasons outlined herein. All too easily,
35 new fusion cuisine can end-up leading to 'con-fusion', especially if the consumer doesn't know
36 how to 'read' the new culinary creation. Meanwhile other, apparently new, creations turn out,
37 on closer inspection, to have older (often forgotten) roots. This review highlights the need to
38 find the right name with which to correctly flag where exactly the innovation lies, as well as
39 stressing the challenges associated with navigating the border between flavours that
40 blend/merge and fusion foods.

41

42 **KEYWORDS:** Fusion food; Fusion cuisine; Novelty; Comfort; Flavour pairing; Blending;
43 Food marketing.

44 **Introduction**

45 Fusion food is something that people often intuitively associate more with the high-end of
 46 cuisine than with the mainstream (e.g., Spence & Piqueras-Fiszman, 2014). That being said, it
 47 is worth noting how fusion cuisine is actually a central component of many take-away and
 48 casual dining foods. Think here only of chicken tikka masala (a seamless merging of British
 49 and Indian styles originating, apparently, from Glasgow; Majumdar, 2009), the Hawaiian pizza
 50 (perhaps Canada's best-known contribution to fusion cuisine! see Johnston, 2017),¹ chicken
 51 Manchurian (created by a Chinese chef working in Mumbai, India; Hayes, 2017), California
 52 Roll (White, 2012), Chop Suey (another fusion of Chinese cooking in US; Coe, 2009), and
 53 Tex-Mex (see 'The Tex-Mex invasion', n.d.).² In fact, of course, one can go further and point
 54 to the fact that many staple foods are, on closer examination, actually also examples of fusion
 55 cuisine: think here only of "tacos al pastor" (Pilcher, 2012, p. 155), ceviche (Rodriquez, 2010),
 56 gumbo (Harris, 2003), ramen noodles (Geiling, 2013), or Japanese tempura (Rath, 2012, p.
 57 182).

58 From a contemporary standpoint, one might think of fusion food in terms of new food styles,
 59 and the associated opportunities for food marketing and experimentation that lie therein
 60 (though see Geiling, 2013). More broadly, though, it is important to recognize that fusion foods
 61 are but one of the most obvious results of cultural intermixing. As such, they can be taken to
 62 symbolize a host of broader issues related to sociocultural exchange and conflict that often
 63 underlie their emergence (e.g., see <http://www.conflictcuisine.com/>; Stano, 2014, 2016;
 64 Spence, 2016, for a review). As such, the existence, and meaning, of fusion foods certainly has
 65 a much broader social/societal meaning, one that unfortunately falls beyond the scope of the
 66 present article. To be absolutely clear, the focus in this article is specifically on the current
 67 public fascination with fusion foods, stretching back no further than the last half century or so.

68 At the outset, it is worth stressing that creating a genuinely successful new fusion dish is not
 69 anything like as easy as it might, at first, sound. Some combinations of elements just simply
 70 seem to work better than others: the question, though, is "Why?" In fact, it is important, when

¹ Sam Panopoulos, a Greek who emigrated to Canada some many years ago, is credited with first putting pineapple pieces on pizza back in 1963.

² Here, one might also be reminded of the recent marketing campaign in which consumers were invited to suggest some novel flavours/flavour combinations for Walkers crisps. The *Walkers MixUps* Range currently consists of mixing-up different varieties of our old favourite snack foods including everything from *Monster Munch* to *Wotsits*... (<https://www.walkers.co.uk/crisps-range/mixups>). It can be argued that such a marketing-led endeavour builds on the public's well-established interest in this area.

71 thinking about new fusion foods, not just merely to consider the merging currently popular
72 trends in foods/styles of cuisine, but also to try to predict those flavour/culinary combinations
73 that will work, moving forward. At the same time, however, as a food marketer for example,
74 one is trying to avoid those combinations (or novel fusions) that, for whatever reason, will not
75 (or are unlikely to) work. This, certainly, is currently a major concern amongst many food
76 marketers, given the consuming public's hunger for all things new, culinarily-speaking. At the
77 same time, however, the consumer's interest in, versus rejection of, novel foods can also be
78 framed within the broader discourse around food "neophobia" and "neophilia", as, for instance,
79 discussed in Claude Fischler's (1980, 1988) work on the "omnivore's paradox" (see also
80 Arvola, Lähteenmäki, & Turoila, 1999; Henriques, King, & Meiselman, 2009; Pliner &
81 Hobden, 1992; Veeck, 2010).

82

83 **Fusion foods: "The best thing since sliced bread", or Frankenfood?**

84 In terms of fusion dishes that have taken the public, or at least a certain section of them, by
85 storm recently (and no, I am not just talking about the millennials), one might think of the
86 Cronut. This combination of croissant and donut, first appeared in the press in 2013, or at least
87 that is when the name first (see Knutson, 2013).³ The Mufgel, meanwhile, a fusion of muffin
88 and bagel first came into being sometime in 2016 (Pesce, 2016). Both of these items were
89 created in NYC. Intriguingly, North Americans were also responsible for so many of the other
90 popular fusion take-away foods that we came across earlier. One other thing to note about the
91 cronut and mufgel is that they are both round. This coincidence is perhaps interesting in light
92 of the suggestion that it is simply much easier to get people to try unusual new foods/flavours
93 if they happen to be presented in round rather than angular form (see Gopnik, 2012; Velasco,
94 Woods, Petit, Cheok, & Spence, 2016). So, while historically-speaking, fusion foods were
95 presumably once the inevitable result of societal intermixing and often of societal conflict,
96 nowadays there is a growing sense in which in the global marketplace, the food marketers and
97 other creatives of the kitchen and increasingly food lab (Lopez-Alt, 2015), are now deliberately
98 searching out potentially successful new fusion dishes to bring to market.

99

³ The Cronut was created by French pastry chef Dominique Ansel, of Dominique Ansel Bakery, in New York.

100 *You can do anything but you can't do that!*⁴

101 *The New York Times* caused something of a kerfuffle recently when it printed a recipe by
 102 Florence Fabricant for what was called a “*Dutch Baby*”. And it wasn’t just the residents of
 103 Yorkshire who were outraged; All across Britain, in fact, people were soon up in arms
 104 complaining that this was a step (or should that be a fusion) too far. This was basically a
 105 Yorkshire pudding batter mix with added sugar and fruit compote on top.⁵ No, the critics said,
 106 this savoury pudding recipe deserves roast beef and gravy (Morrissy-Swan, 2018)! That is the
 107 way it was supposed to be. But what, exactly, got people so upset? Surely there are no
 108 fundamental limits on what we can combine at the dinner table (though see Douglas, 1972;
 109 Lévi-Strauss, 1970). Were the irate Brits simply upset by the appropriation of a British recipe
 110 by a North American chef, or was it instead the transformation of what was supposed to be a
 111 savoury dish into a sweet one that triggered the public’s ire? Or perhaps it was simply the bare-
 112 faced failure to acknowledge the fusion, or adaptation, that fundamentally underlay the dish?
 113 One possible message to take away here is that fusion foods may be more likely to succeed if
 114 the relevant sources are acknowledged? The public outrage, in this case, was matched only by
 115 the outcry elicited by Masterchef winner, Nadiya Hussain, when she introduced Britain to her
 116 *Bolognese pie* last year (Morrissy-Swan, 2017).

117

118 **So what, exactly, are fusion foods?**

119 Think about it carefully and it turns out that most popular dishes can, on closer inspection, be
 120 described as fusion foods. Chiles, tomatoes, corn, and potatoes, after all, are all ingredients that
 121 originated from the ‘New World’ (Hawkes & Francisco-Ortega, 1993; see Spence, 2018a, on
 122 the phenomenal global rise of the chile over the last 500 years or so). Or, going in the opposite
 123 direction, geographically-speaking, any dish that incorporates citrus, think Seville marmalade,
 124 for but one example, is built on a fruit that has its origins in S. E. Asia (see Stone, 2017; the
 125 citrus element in ceviche coming to the new world via colonial Spain; see Rodriquez, 2010).
 126 However, over the centuries, these ingredients have been seamlessly integrated into the
 127 cuisines of India, Italy, China, as well as many other countries. Nowadays, in fact, it is hard

⁴ As Meatloaf once sang. Though the Dutch Baby was presumably not what he had in mind when he penned those famous words.

⁵ Before getting too excited here, it is perhaps worth remembering that the recipe for pancakes, is essentially identical to that for Yorkshire Pudding. And pancakes, as we know, can be served both sweet and savoury.

128 even to imagine what Italian cuisine must once have been like without the tomato or the chile?
 129 *Pizza diavola* and *pasta arrabiata* would be out for a start. The latter are, in a very real sense,
 130 fusion foods. Given this profound historical perspective, therefore, in this review, I do not
 131 aspire to tackle the historical melding of cultures and ingredients that has given rise to most of
 132 the fusion foods that we are familiar with in the modern era. While the historical perspective is
 133 undoubtedly important, the focus here will instead be squarely on the striking contemporary
 134 interest in fusion foods, an interest, moreover, that seems to exist independent of any deeper
 135 concern for social/cultural/historical issues. It can certainly be argued that the contemporary
 136 interest in new fusion foods seems to be much more closely aligned with an interest in novelty
 137 in cuisine and the growing interest in experimentation with food than with anything else.

138

139 *Defining fusion food from a contemporary perspective*

140 At the outset, it is important to note that fusion cuisine is not only about the mashing-up of
 141 unusual combinations of ingredients. There is also the fusion of culinary
 142 philosophies/approaches to consider: Here, one might think of the *nouvelle cuisine* movement,
 143 which itself emerged back in the late 1960s, when French chefs started to adopt traditional
 144 Japanese culinary ideas as well as their oriental colleagues' food aesthetic (Halligan, 1990;
 145 Revel, 1985; Spence & Piqueras-Fizman, 2014). Furthermore, the current explosion of
 146 innovative plateware designs, incorporating both unusual colours and textures (and replacing,
 147 to a certain extent, the round white American plate), again seems to borrow from, or at the very
 148 least be inspired by, Japanese plating traditions (Oshima & Cwiertka, 2006; see also
 149 [http://www.thewednesdaychef.com/the_wednesday_chef/2018/05/a-day-in-milan-](http://www.thewednesdaychef.com/the_wednesday_chef/2018/05/a-day-in-milan-eurocucina-2018.html)
 150 [eurocucina-2018.html](http://www.thewednesdaychef.com/the_wednesday_chef/2018/05/a-day-in-milan-eurocucina-2018.html)).⁶

151 Here, though, the problem of defining fusion cuisine becomes rather more nuanced. One might,
 152 for instance, want to argue that fusion foods necessitate the merging of two already well-
 153 established styles of cuisine. Indeed, one might want to contrast genuine fusion with cross-
 154 cultural culinary inspiration, whereby one well-established approach simply builds on the
 155 other, or merely uses it as a springboard for the development of the other. There are also
 156 relevant and important distinctions to be made here between those foodsphere interactions that
 157 can, or should, be thought of as examples of assimilation (Landowski, 1997) or even

⁶ Not, of course, that exotic plateware is necessarily to everyone's tastes (see Connell, 2014; Perry and agencies, 2014).

158 contamination (Ceriani, 2004) rather than necessarily of fusion. According to Stano (2014),
 159 fusion implies “*a harmonious combination of different culinary traditions in order to create*
 160 *innovative and seamless dishes*”.

161 In particular, Stano (2014) defines “fusion cuisine” as “*a style of cooking combining*
 162 *ingredients and techniques from different foodspheres. Asian fusion restaurants, for instance,*
 163 *offer blends of various cuisines of different Asian countries and the culinary traditions of the*
 164 *places where they have become increasingly popular. Similarly, the Tex-Mex cuisine combines*
 165 *the South-western United States culinary system with the Mexican foodsphere, while the Pacific*
 166 *Rim cuisine is based on the mix of different traditions from the various island nations; and so*
 167 *on and so forth. In all these cases, foods based on one culinary culture are prepared using*
 168 *ingredients, flavours, and techniques inherent to another culture. Consider for instance the*
 169 *case of “Taco Pizza”, a pizza made with cheddar and pepper jack cheese, tomato sauce, refried*
 170 *beans and other common taco components.*” However, rather than getting bogged down in
 171 these finer points of detail in this article, I will take a much more superficial consumer-based
 172 understanding of new fusion food, as reflecting any novel combination of food elements,
 173 typically with those identifiable elements having distinct cultural/historical roots.

174

175 **On the search for novelty in cuisine**

176 In a very real sense, the search for the latest new fusion food is actually a search for novelty in
 177 cuisine. To some, that search can seem like a relatively new phenomenon, something perhaps
 178 associated with *nouvelle* or *modernist cuisine*. However, it is important to stress that diners
 179 have been interested in the latest novelties from the kitchen for many years now (Beaugé,
 180 2012). As support for the latter claim, just take the following quote penned by Auguste
 181 Escoffier, head chef of the Paris Ritz and London Savoy, more than a century ago: “*It is an*
 182 *exceedingly common mania among people of inordinate wealth to exact incessantly new or so-*
 183 *called new dishes ... Novelty! It is the prevailing cry; it is imperiously demanded by everyone.*
 184 *... What feats of ingenuity have we not been forced to perform, at times, in order to meet our*
 185 *customer’s wishes? Personally, I have ceased counting the nights spent in the attempt to*
 186 *discover new combinations.*” (Escoffier, 1907, p. vii). In fact, though, interest in all things
 187 unusual and exotic, culinarily-speaking, stretches back much further, at least as far as Ancient
 188 Rome (e.g., see Andrews, 1949; Apicius, 1936; Kaufman, 2001). Perhaps, therefore, one might

189 consider the interest in novelty as being as old as the interest in cuisine itself (at least amongst
190 certain societies/cultures).

191 But can we say anything meaningful about what may be driving the contemporary interest in
192 novelty, in the unusual, the surprising, and in the latest ‘new thing’ as far as food and drink are
193 concerned? Well, according to one commentator, we live in a period of great uncertainty. We
194 live, in other words, in a world in which diners are unsure as to whether they really are getting
195 the best of all possible sensations. The problem, at least according to Baumann, is that we can’t
196 measure those sensations and experiences objectively in order to know whether or not they
197 really are the best. In fact, this particular commentator goes even further, in suggesting that:
198 “*Novel or strange edibles are no longer scorned but prized, dinner-party fare is judged*
199 *according to its surprise value.*” (quoted in MacClancy, 1992, p. 209). It is interesting to note
200 here that while any new fusion food must, in a sense, obviously be novel, such foods, or dishes
201 are, in fact, often created by a melding of elements that are themselves individually familiar.
202 Think here only of the addition of sliced pineapple to make the Hawaiian pizza. As such, many
203 recently-created fusion dishes might perhaps be fruitfully be thought of as a kind of
204 adventurous comfort food (Spence, 2017b). Nothing too out of the ordinary, but a little bit
205 exciting nonetheless. Again, therefore, there may be a useful link here back to the topic of food
206 neophobia/neophilia.

207 The contemporary interest in novelty can also be framed in terms of a growing interest in food
208 experimentation. By definition, contemporary new fusion foods represent but one example of
209 experimentation in the kitchen. Not the only form, by any means, but a pertinent one
210 nonetheless. As such, new fusion foods would seem to be very much ‘on trend’ given the
211 widespread and growing increase in interest in this area, as evidence by the titles of many of
212 the books released in this area over the last decades or so (e.g., Lopez-Alt, 2015; Vega et al., ,
213 2012).

214

215 *On the dangers of disconfirmed expectation*

216 Give people something new to try, and there is a very real danger that you will elicit a
217 ‘disconfirmation of expectation’ response. This is rarely a good thing as far as our food and
218 drink experiences are concerned (see Piqueras-Fiszman & Spence, 2012, 2015). Just take the
219 smoked salmon (or crab bisque) ice-cream served at *The Fat Duck* in Bray by chef Heston
220 Blumenthal (<http://www.thefatduck.co.uk/>) some years ago as an example of the problems that

221 one can run into. The top chef thought that his latest creation tasted wonderful. What, after all,
222 was there not to like? It was an unusual combination, or should that be fusion, of individually
223 delicious elements (e.g., smoked salmon and ice-cream). However, the problem for the first
224 unsuspecting diners to try the dish during piloting was the ‘disconfirmation of expectation’
225 response that they experienced (see Spence, 2017a, on this story). Specifically, the diners were
226 misled by the pinkish-red hue of the ice-cream into thinking that what the unnamed dish that
227 they were about to tuck into was a delicious bowl of the chef’s latest strawberry (or, at the very
228 least, red fruit) ice-cream. The diners, in other words, expected a sweet-tasting dessert, but got
229 a salty/savoury mouthful of ice-cream instead. This was not at all what they had expected. As
230 a result, they rebounded in their judgments, rating the dish as tasting way too salty instead. This
231 was obviously not at all what one of the world’s top chefs had in mind. What this example can
232 perhaps be taken to show, is that fusion in the kitchen/dining room really needs to be managed
233 carefully if it is to succeed in the marketplace. Given that the dish is new, one needs to be sure
234 that the consumer/diner knows how to ‘read it’ correctly (see the section on ‘Con-fusion foods’
235 below).

236 In the case of Blumenthal’s ice-cream, the results of research conducted by the top chef together
237 with psychologist Martin Yeomans and a team from the University of Sussex (together with
238 Firmenich’s Tony Blake; see Yeomans, Chambers, Blumenthal, & Blake, 2008) demonstrated
239 that giving the dish a name, such as ‘*Food 386*’ or just ‘*Savoury Ice Cream*’ was sufficient to
240 change people’s expectations about this new food. In the former case, the diners presumably
241 knew enough to realize that it most probably wasn’t regular ice-cream that they were about to
242 taste. Crucially, then, this resulted in diners liking the dish more too. Suddenly, the new dish
243 tasted as the chef had intended. What this example nicely illustrates, I think, is the importance
244 of making sure you get the name for your new fusion dish right. Otherwise, if the consumer or
245 diner doesn’t know quite what the producer of the food is up to, they may not like the result.
246 Of course, the importance of naming is not something that is restricted to the world of fusion
247 foods (see Spence & Piqueras-Fiszman, 2014).

248 Other examples from the ice-cream space of elements that we may well like individually but
249 find it hard to get our heads around when combined, or fused, in innovative ways include the
250 oyster ice-cream served by chef Jozef Youssef of *Kitchen Theory*. Note that this is actually a
251 historic British dish, one that has recently been revived by the chef at his Gastrophysics chef’s
252 table in London’s High Barnett (<https://gastrophysics.co.uk/>). As it happens, savoury ices were,
253 in fact, once a reasonably common feature of fashionable dinner tables here in the UK a little

254 over a century ago (Marshall, 1888; see also Colquhoun, 2007). Though, as should by now be
 255 clear, what to today's diners might look like a new fusion dish may well turn out to have its
 256 roots firmly fixed in tradition. Once again, this example nicely illustrates the point that there is
 257 often an important historical, not to mention cultural, component to what may count as sensory
 258 incongruity when it comes to the dinner table.

259 Other classic fusion dishes here include Blumenthal's (in-)famous *Bacon and Egg* ice-cream
 260 (Blumenthal, 2007, 2008). This was, I believe, a genuinely new combination of elements when
 261 first introduced onto the menu at *The Fat Duck* in Bray. Even Mrs. Marshall's marvellously
 262 creative mind had never, one suspects, conceived of such a combination before. By contrast,
 263 parmesan ice-cream, a dish linked to the likes of Ferran Adrià and Heston Blumenthal (see
 264 [http://atasteofhistorywithjoycewhite.blogspot.co.uk/2016/08/parmesan-ice-cream-i-am-not-](http://atasteofhistorywithjoycewhite.blogspot.co.uk/2016/08/parmesan-ice-cream-i-am-not-kidding-you.html)
 265 [kidding-you.html](http://atasteofhistorywithjoycewhite.blogspot.co.uk/2016/08/parmesan-ice-cream-i-am-not-kidding-you.html)) is, once again, a traditional recipe that has been repopularized by the
 266 modernist/molecular chefs (again, see Field & Smith, 2001; Hobsbawm & Ranger, 1983).
 267 Presumably, it is only those with a sufficient knowledge of food history that will be able to say
 268 for sure whether some putatively 'new' fusion dish really is original, or has rather simply been
 269 'rediscovered'. Alternatively, however, I suppose that one might rightly frame the oyster or
 270 parmesan ice-creams as a fusion of a traditional dish with modernist cooking tendencies (see
 271 Youssef, 2013). Undoubtedly, however, there are some out there who would instead want to
 272 frame these as examples of culinary inspiration, assimilation, or contamination instead, rather
 273 than genuine cases of fusion foods (see Stano, 2014, 2016).

274

275 *On the origin of dishes*

276 Sometimes, then, our commonly-held beliefs about the provenance of a particular dish turns
 277 out to be mistaken (see Field & Smith, 2001; Geiling, 2013). As when those dishes that we
 278 firmly associate with one culture/region turn out to have their origins elsewhere instead. In this
 279 category, one might think of fish and chips, that classic staple British take-away dish. Except
 280 that it is not, at least according to the latest research. It turns out to be an Eastern European
 281 Jewish (or possibly Venetian) invention (see Blake, 2017).⁷ The same misattribution also holds
 282 for meatballs, that most iconic of Swedish dishes (at least for those who like to dine at IKEA;

⁷ The habit of eating cold fried fish came over from Eastern Europe. However, all is not lost, for British pride as the dish, as we now know it, only really emerged when combined with the fried potatoes that were being sold in the East End of London.

283 Blake, 2016). The Swedes, if you haven't heard, recently plucked up the courage to admit that
 284 'their' meatballs are really a Turkish invention (see Henley, 2018). Such confusions highlight
 285 the need to think carefully about the timeframe that one is talking about when thinking about
 286 fusion cuisine. This discussion also raises a relevant question about the very creation of
 287 tradition, and the potential for deliberately misdirecting the consuming public in this regard
 288 (e.g., see Hobsbawm & Ranger. 1983, pp. 4-5; see also Field & Smith, 2001). Indeed, the
 289 construction of an appealing narrative around a putatively 'new' fusion food is obviously all
 290 the more likely to occur once the food marketers have decided that this is a slant that sells (or,
 291 at the very least, appears to intrigue consumers).

292

293 **Or fusion dishes that do/don't work and why**

294 In the search for new fusion foods that work in the marketplace there are a number of salient
 295 issues/factors that it is worth bearing in mind.

296

297 *Avoiding 'con-fusion' foods*

298 As Stano (2014) notes: "...fusion cuisines run the risk to degenerate into "con-fusion
 299 cuisines", causing inevitable clashes between incompatible flavours and textures, and
 300 fomenting a chaotic overlapping between different foodspheres and "food identities". Such
 301 'con-fusion' foods are likely to result when the consuming public cannot read the signs
 302 correctly. It is at this point, that it may be helpful to bring in a semiotics angle to the discussion
 303 of fusion food, one that builds on an understanding that the foods we create, serve and consume
 304 do not merely serve a nutritional function (see Barthes, 1961; Lévi-Strauss, 1965; Montanari,
 305 2006); oftentimes, they also serve a social/cultural role, in signalling to ourselves, and more
 306 importantly, to others, a certain meaning (at least to those who can read the signs). As Claude
 307 Fischler (1980, p. 937) memorably put it: "*Man feeds not only on proteins, fats, carbohydrates,*
 308 *but also on symbols, myths, fantasies.*" Within such a semiotic framework, it would seem
 309 fruitful to ask about the signalling that is implicit in the desire for, not to mention the meaning
 310 or interpretation of, new fusion foods. One might be tempted to describe this as a situation in
 311 which two different semiotic systems are being brought together (at least whenever two
 312 distinctive foods/food styles are being combined). Going one stage further, it might be argued

313 that in order for the fusion food so created to work in the marketplace, a new ‘meaningful’
 314 semiotics needs to emerge from the two component systems so combined.

315 This level of analysis builds directly on the analogous recent discussion of the semiotics of the
 316 dancing traffic cop of Manila (see Leone, 2013, 2015). Specifically, videos of this dancing
 317 policeman, Ramiro Hinojas, went viral on the internet a few years ago (see
 318 <http://www.youtube.com/watch?v=9PfKsF0B7Uc>). For those who have not seen him, this lithe
 319 individual successfully manages to direct the busy city-centre traffic while at the same time
 320 dancing like Michael Jackson. The semiotics of traffic control on the one hand, and of
 321 contemporary dance moves on the other, have been brought together in a most unusual manner.
 322 In this case, the result is a fusion or mashing-up of two distinct semiotic systems works,
 323 according to Leone, because the two systems already shared some structural features in
 324 common to begin with. As Leone (2013) notes (he is, I think, worth quoting at length on this):
 325 *“innovation frequently stems from the conflation of two or more distinct systems of signs;*
 326 *second, innovation never originates from a vacuum; on the contrary, it always rests on some*
 327 *preexistent semiotic materials. However, there is also a third point that Ramiro Hinojas’s*
 328 *experience underlines: simply merging two systems of signs whatsoever does not necessarily*
 329 *bring about innovation. The semiotic characteristics of the first and those of the second must*
 330 *somehow combine in order to produce a third system that derives from them but is at the same*
 331 *time new and harmonious. The purpose of innovation semiotics is to determine the rules, or at*
 332 *least the strategies, of this “somehow”, as well as to pinpoint the hallmarks of both novelty*
 333 *and harmony.”* Looking to the future, therefore, it may be fruitful to further consider such a
 334 semiotic analysis in the case of contemporary innovations in fusion cuisine.

335

336 *Fusion vs. blending*

337 One food fusion that, at a certain level at least, really ought to work but actually probably
 338 doesn’t, at least not for most of us in the UK, is *Yuenyeung*. This, the name given to the Hong
 339 Kong drink consisting of a mixture of tea and coffee. Many people who like tea, also like
 340 coffee, so why not mix them up? Surely, the combination should be at least as enjoyable as its
 341 constituent elements. It should certainly be a lot more complex which is normally considered
 342 a good thing as far as quality food and drink experiences are concerned (see Palczak,
 343 Blumenthal, Rogeaux, & Delarue, 2019; Singleton & Ough, 1962; Spence & Wang, in press;
 344 Wang & Spence, 2018, on this general theme). And yet, most people living outside Hong Kong,

345 really don't seem to like the idea of combining these two drinks, despite their seemingly serving
346 much the same function in daily life. They are, after all, drunk under more or less the same
347 conditions.

348 In this case, it may be something about our struggling to differentiate these two similar
349 concepts, that makes the idea of combining them somehow 'unnatural', or at least unappealing.
350 After all, research elsewhere in the field of psychology has repeatedly shown that combinations
351 that are hard to process; that do not in other words, afford processing fluency tend to be liked
352 a little less (see Reber, Schwarz, & Winkielman, 2004; cf. Elliot & Devine, 1994; Ferrey,
353 Burleigh, & Fenske, 2015; Yamada, Kawabe, & Ihaya, 2013). Thinking about it, then, one
354 possible explanation for *Yuenyeung* seeming so unappealing is that we normally spend so much
355 time and effort keeping these drinks separate that when they come together maybe there is a
356 category confusion that is just unpleasant. Certainly, it has been suggested previously that
357 disgust responses can result from category confusions (Sahlins, 1976). That said, this logic
358 would presumably also imply that the cronut and mufgel (both combinations of pastry/baking
359 elements) should also be unappealing given that, once again, they might well be eaten under
360 similar conditions. What may be different in the *Yuenyeung* case is the two elements, when
361 mixed, lose their own identity, perceptually-speaking. By contrast, with the mufgel/cronut,
362 the elements of the components remain distinctive. In fact, part of the intellectual (as opposed
363 to merely sensory) pleasure associated with discovering such new fusion foods may reside in
364 correctly ascribing the elements of the emergent fusion food to its contributing component
365 parts.

366 Alternatively, however, our unease with this particular combination might reflect an important
367 distinction here between blending and fusion in cuisine. What, exactly, is the difference? At
368 one level, they both seem to be talking about the same kind of thing: That is, the bringing
369 together of disparate sensory elements into novel flavour experiences/dishes. However, at
370 another level, blending seems to carry with it the notion that the individual elements may lose
371 their individual identity when combined. By contrast, in order to label something as a fusion
372 food it perhaps carries with it the requirement that the individual elements retain some
373 component of their own distinctive identity. One has, in other words to be aware of the fusion.
374 What the examples discussed in this section hint at, therefore, is the distinction between fusion
375 and blending.

376 Other problematic fusions in the drinks space include the mixing of red wine with cola. When
 377 the rich Asian businessman does this with a bottle of *Chateaux Margaux* (1984), say, the
 378 experts turn their noses up and say “*How could they?*” At the same time, however, it turns out
 379 that this is a common practice in Spain (though, I hasten to add, they do it over there with
 380 cheaper wine). The mixture, called *Kalimotxo*, a 50/50 mixture of red wine and cola, is a
 381 popular drink amongst younger adults in parts of Spain (Erdos, 2012). What such examples
 382 hint at, perhaps, is the problem that one can run into if trying to combine ingredients, or
 383 elements, of very different quality, or price.

384 When thinking about the distinction between blending and fusion, it seems relevant once again
 385 to quote Stano (2014) who stresses the importance of ‘modularity’ when creating successful
 386 fusion foods. She states that: “*Modularity is in this sense crucial, because, as previously*
 387 *discussed, it highlights the possibility of creating several combinations with specific*
 388 *ingredients introducing different layers of fusion.*” One might read talk of modularity here as
 389 meaning that the component ‘foodspheres’, in Stano’s terminology, remain intact (or
 390 identifiable). In Stano’s case, for example, she points to Italian sushi rolls, as served in a
 391 popular Asian fusion restaurant in Italy. The dish retains the structure/style of the original
 392 Japanese variant, while using identifiably Italian ingredients, such as Bra sausage or Parmesan
 393 tempura. It is this ‘modularity’ that is lost when elements/ingredients/flavours fuse as in the
 394 case of *Yuenyueng* and *Kalimotxo*.

395

396 **Is it yet possible to make any predictions concerning successful new flavour**
 397 **combinations?**

398 When you think about it, some fusion foods sound delicious but are actually disgusting. What,
 399 for example, do you think about the idea of fizzy milk, crunchy cheese, yoghurt jerky, or
 400 mealworm pasta (Wallop, 2017)? None too appealing, if you ask me. At the same time,
 401 however, some fusion foods sound surprising, shocking even, but are actually quite more-ish;
 402 Here, I am thinking, for example, of olive oil ice cream (Levine, 2003).⁸ And then there are
 403 those delicious combinations that we wonder why it took us so long to discover, like salted
 404 caramel. That such different responses may be elicited raises a more fundamental issue here
 405 for those who may be trying to come up with new fusion foods. This concerns the question of

⁸ Anyone who has tasted the fabulous olive oil gelato at Otto’s in New York will know what I am talking about.

406 whether it is yet possible to predict with any degree of certainty, whether we are going to like
407 an original combination of flavours without necessarily having tasted them together first (cf.
408 Kemps & Tiggeman, 2013). And separately, are the chefs, not to mention other food
409 professionals out there, (and, heaven forbid, the food marketers too, come to think of it,) any
410 better at doing this than the rest of us? Do you, for example, think that you would like the taste
411 of a raspberry and avocado smoothie? Or how about green tea jelly, or beetroot custard for that
412 matter? Or how about the following from an Asian fusion menu picked up by Stano (2014):
413 “*Have you ever imagined a sushi roll containing Bra sausage or Parmesan tempura?*” Given
414 the continued and possibly growing interest in new fusion foods, it would be nice to know if
415 there were any techniques, other than simply trial-and-error, that might help predict the likely
416 success of some new food fusion or other.

417

418 *Can cognitive neuroscience help?*

419 In recent years, cognitive neuroscientists have assessed which parts of the human brain become
420 more active when people decide on whether or not they would like to taste a particular novel
421 combination of ingredients (Barron, Dolan, & Behrens, 2013). Increased neural activation was
422 documented in areas such as the medial prefrontal cortex (mPFC) in those performing such a
423 task.

424

425 *Can the flavour pairing principle be used to come up with new combinations?*

426 Given the difficulty we face when trying to predict what new combinations of flavours will
427 taste like (see above), it is understandable why there has, over the last decade or two, been so
428 much excitement around the idea of flavour pairing. Basically, the idea here is that one can
429 predict those combinations of ingredients that might go especially well together based on the
430 flavour molecules that they have in common. From the outside, this undoubtedly seems like it
431 ought to be a good way of devising new combinations of flavours, new ideas for fusion foods
432 in other words. And indeed, the flavour pairing approach did initially appear to come up with
433 some novel combinations that worked surprisingly well. Combinations that no one had
434 apparently thought of before, such as white chocolate and caviar (one of Heston Blumenthal’s
435 favourites; see Blumenthal, 2002), chocolate and blue cheese, and pork liver and jasmine.
436 However, despite a few well-publicized early successes, subsequent systematic analysis by
437 independent food scientists has actually revealed that, in general, the flavour pairing hypothesis

438 simply doesn't work (e.g., Bredie, Petersen, Hartvig, Frøst, Risbo, & Møller, 2015; De Klepper,
 439 2011). At best, it may be used to help generate some unusual combinations, that one can then
 440 go on to test empirically (to see if they do, indeed, work well together), but that is it. Flavour
 441 pairing, in other words, turns out to be nothing more than a tool for idea generation in the space
 442 of novel flavour combinations.⁹ It certainly doesn't offer the guaranteed short-cut to novel
 443 flavour combinations, to new fusion foods, in other words, that the approach's proponents
 444 would have us believe. In fact, even Chef Watson, IBM's AI entry into the field of flavour
 445 pairing, fails, at least according to the online reviews (Trout, 2015).

446

447 *Computational gastronomy: Cross-cultural differences in flavour perception*

448 Before closing, it is perhaps worth considering whether there may be any relevant cross-
 449 cultural factors to take into account when thinking about the development of novel fusion
 450 foods. Interestingly, here, analysis of many western recipes tends to show that ingredients that
 451 share flavour compounds are combined in dishes at a rate that is significantly higher than would
 452 be expected by chance. By contrast, in parts of Asia (think Korea, India), ingredients appear to
 453 be combined more frequently than would be expected by chance in those dishes when they do
 454 not share flavour compounds (Ahn, & Ahnert, 2013; Ahn, Ahnert, Bagrow, & Barabási, 2011;
 455 Ahnert, 2013).¹⁰ That, at least, was the conclusion from a statistical analysis of the ingredients
 456 found in many thousands of online recipes (Jain, Rakhi, & Baglerb, 2015; see Spence, Wang,
 457 & Youssef, 2017, for a review). One might wonder, therefore, whether such cross-cultural
 458 differences imply that different kinds of new fusion dishes (based on overlap or discrete
 459 elements) ought to be preferred by those from different cultures.

460

461 **Conclusions**

462 When looked at carefully, pretty much all of the food that we eat is really fusion food,
 463 involving, as it does, the combination of ingredients and techniques, often from different parts

⁹ This reminds me of the following challenge: Can you pick any three ingredients that pair well together, but which do not work as a trio?

¹⁰ Who knows, though, whether such cross-cultural differences can help explain why it is that some people like to drop cheese in places it simply doesn't belong (at least not according to by own Western European flavoursphere); The Colombians, for instance, are fond of putting cubes of tasteless but firm white cheese into their hot chocolate; The Indians, meanwhile, sometimes put it into their curries. Neither works conceptually for me.

464 of the world. As such, in this review, the focus has been specifically on the contemporary
465 interest in actively developing, new fusion foods (in contrast to the more traditional route to
466 the creation of such dishes through intercultural exchange and the possible attendant conflict).
467 While the subject of ‘new’ fusion foods frequently capture the headlines, not to mention the
468 public’s imagination, coming up with successful new fusion foods is likely harder than it might,
469 at first, seem. In part, this is because of the danger of ‘disconfirmation of expectation’.
470 Sometimes, but certainly not always, fusion dishes can be framed as fulfilling a desire both for
471 comfort (i.e., familiar) food, and, at the same time, for novelty. They sometimes result from
472 combining elements that are individually familiar. At the same time, however, they clearly fit
473 within the broader interest in the experimental approach that we have seen in the West in recent
474 years. As hopefully made clear by this review, top tips for anyone wanting to create a new
475 fusion dish include thinking carefully about what you call it (to avoid disconfirmation of
476 expectation), and clearly identifying the inspiration/possibly.

477 As yet, a trial-and-error approach to the development of new fusion foods, would seem the best
478 option, given that none of the possible strategic approaches, involving cognitive neuroscience,
479 computational gastronomy, AI has yet come up with a failsafe way of predicting how the
480 consumer will respond to a given new fusion food. That said, a number of relevant issues to
481 bear in mind when working in this space have been hopefully clearly elucidated in this review.

482 When thinking about novel foods, it should not be forgotten that while the desire for all that is
483 new in cuisine has been with us for a very long time, our interest in the comfort (i.e., familiar)
484 part of the equation may well wax and wane with the global situation and, in particular, how
485 safe/unsafe we feel (see Spence, 2018b). Ultimately, as highlighted by this review, when
486 thinking about suggested novel fusion foods, it may be helpful to consider whether one is
487 talking about a fusion of ingredients, recipes, or culinary philosophies, or some mixture of the
488 above. Perhaps it also pays to be sensitive to the question of whether any putatively new fusion
489 food really is as novel as it might at first seem, and whether assimilation, contamination, or
490 blending might not be a better description for the food so created. Just remember here, as
491 stressed by Stano (2014), not all innovation is necessarily good innovation.

492

493

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