



Crying over food: An extraordinary response to a multisensory eating experience

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ABSTRACT

Recent years have seen a growing awareness of the extraordinary responses that can sometimes be elicited in diners by food. One such response is crying, and it was this unusual behaviour that chef Federico Rottigni anecdotally observed in response to one of the dishes on his recently-introduced Ayuhuasca menu. In particular, something about Serendipity, the seventh course on a nine-course tasting menu currently served at the restaurant in Milan makes some diners want to cry. This is the first of three dessert courses, and consists of a small bowl of rice pudding covered with white wafers which are broken onto the dish in front of diners at the point of service. But why do a number of the diners spontaneously break into tears during this course? Several factors that may be contributing to this extraordinary emotional response are outlined. Importantly, rice pudding can be considered a nostalgic comfort food associated with childhood for many people. The dessert is accompanied by a complex multi-element soundscape consisting of a school bell, the voice of a female school teacher talking in Italian; Later in the recording, a spatially discrete voice of an old woman reminiscing in English is also heard; At the same time, a simple, almost hypnotic, ascending and descending musical riff is played repetitively, while a music track with sustained low frequency notes appears to help draw people's attention to their own body (bodily sensations). Together, and possibly synergistically (superadditively), these various multisensory elements, both on and off the plate, contribute to delivering what can be classed as an extraordinary multisensory gestalt dining experience for a number of the guests.

1. Introduction

Recent years have seen a growing interest in the delivery of extraordinary tasting experiences (see [Spence, 2020](#), for a review), that may trigger feelings of shock and awe, surprise (magic), nostalgia, and even fear (e.g., [Spence and Youssef, 2022](#); [Spence et al., 2020](#)). One extraordinary response to food and drink is the elicitation of so-called emotional crying (e.g., [Barthelmäs et al., 2022](#)). Tears can be categorized into basal, reflex, and psychoemotional ([Barthelmäs et al., 2022](#); [Murube, 2009](#)). Emotional crying has been reported anecdotally in the popular press by a number of commentators, and informally by diners, when experiencing certain specific multisensory food dishes ([Spence, 2020](#)). The notion that certain dishes can bring people to tears can also be seen referenced currently in the movie 'The taste of things'.

Several different reasons why people cry have been identified,

though the most relevant category in relation to the Serendipity dish, the seventh course on a nine-course tasting menu currently served at the restaurant in Milan, described here would appear to be the category of 'media-related crying' ([Barthelmäs et al., 2022](#); and see [Cotter et al., 2018](#), on feeling like crying in response to music), specifically crying in response to multisensory food and drink encounters ([Vorderer et al., 2006](#)). There are, though, obviously a number of factors that influence the likelihood that someone will cry, including everything from individual differences in the proneness to crying (e.g., [Denckla et al., 2014](#)) through to contextual factors related to the environment and company (e.g., [Vingerhoets et al., 1997](#)).¹ Moreover, unlike other art forms, such as cinema or opera, say, dining is not necessarily a context in which people are conditioned to cry. Nevertheless, this was the response that was spontaneously elicited in a number of diners, as observed anecdotally by chef Federico Rottigni in response to one specific dish on one

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¹ Note that in such a social setting there may be a reticence to cry in public, and indeed informal observation suggests women are more likely to cry than male diners (cf. [Dahl, 2015](#)).

specific menu concept.

2. The Serendipity dish as part of the Ayahuasca dining concept

Ayahuasca is the dining concept served at chef/patron Federico Rottigni's Sensorium restaurant in central Milan currently. Up to 11 diners are seated along a bar where dishes are served from behind the counter by a staff of three (see Fig. 1). The experience is served from Tuesday to Saturday evening only, and the experience lasts around 2 h. The only dish in which people cried was Serendipity (see Fig. 2).

The concept behind the Ayahuasca multisensory immersive dining experience is to give diners a mystical and almost hallucinogenic dining experience that may capture something of the Ayahuasca rituals that are practiced by certain groups living in the Amazon, but without the psychotropic elements (Frecska et al., 2016; McKenna et al., 1998). As McKenna et al. note: "Of the numerous plant psychotropics utilized by indigenous populations of the Amazon Basin, perhaps none is as interesting or complex, botanically, chemically, or ethnographically, as the beverage known variously as ayahuasca, caapi, or yage. The beverage is most widely known as ayahuasca, a Quechua term meaning "vine of the souls", which is applied both to the beverage itself and to one of the source-plants used in its preparation, the Malpighiaceae jungle liana, *Banisteriopsis caapi* (Schultes, 1957). In Brazil, transliteration of this Quechua word into Portuguese results in the name, Hoasca. Hoasca, or ayahuasca, occupies a central position in Mestizo ethnomedicine, and the chemical nature of its active constituents and the manner of its use makes its study relevant to contemporary issues in neuropharmacology, neurophysiology, and psychiatry ... The use of ayahuasca under a variety of names is a widespread practice among various indigenous aboriginal tribes endemic to the Amazon Basin (Schultes, 1957). Such practices undoubtedly were well established in pre-Columbian times, and in fact may have been known to the earliest human inhabitants of the region. Iconographic depictions on ceramics and other artifacts from Ecuador have provided evidence that the practice dates to at least 2000 B.C. (Naranjo, 1986). Its widespread distribution among numerous Amazonian tribes also argues for its relative antiquity. Considerable genetic intermingling and adoption of local customs followed in the



Fig. 1. Diners at Sensorium in Milan.

wake of European contact, and ayahuasca, along with a virtual pharmacopoeia of other medicinal plants, gradually became integrated into the ethnomedical traditions of these mixed populations. Today the drug forms an important element of ethnomedicine and shamanism as it is practiced among indigenous Mestizo populations in Peru, Colombia, and Ecuador".

The nine courses on the menu are shown below:

La Medicina
Non Chicken Curry
Mareada
Magic Mushrooms Taco
You
Caothic Quantum
Serendipity
Guiding Spirit
The Soul of Things

Sensorium dining experiences tend to attract an international clientele, with a preponderance of those from Switzerland, the UK, and North America (and fewer Italians).

The sonic element consists of environmental sounds such as the sound of the school bell, a female schoolteacher speaking in Italian, and simple predictable ascending riff. The music it's a production made on top of an emotional and post-rock Nordic track, called "Untitled #3" from Sigur Ros, with an array of bass frequencies and a predictable, repetitive and simple riff.² The melodic aspect over the rhythmic aspect of the track, as well as the song's cyclic, repetitive, and stable structure are also notable. The track's dynamic crescendo also likely creates a hypnotic environment. We suspect that this sonic element may result in an altered state of consciousness, namely a semi-hypnotic and a lightly dissociative effect (see Gingras et al., 2014; Margulis, 2013; Otchy, 2017). The track contains sustained low-frequency sounds as part of the musical track.³ Two powerful professional sub-woofers (Indiana Line Basso 880) are used to present the low-frequency components of the sound. Later in the composition, the diners also hear the voice of an old woman speaking in English, reminiscing about her life. The sound system is capable of panning sound to add a salient element of spatiality. Note that the entire playlist for the Ayahuasca experience is currently available on Spotify (<https://open.spotify.com/playlist/79RGYekXYlWMAB2C9ObJoE?si=905682f4ed71419c>).

As Burd (2023) notes, indispensable to those multisensory experiences that involve bodily vibration are the loudspeakers themselves and the use of high-quality audio. Sound engineers had calibrated the performance of the loudspeakers to the space. As such, it is possible to present sound low-frequency sounds that have few tonal characteristics and are almost transparent in relation to the reverberation in the spatial environment. As such, it becomes something of a 'site-specific' multisensory experience – both because of the nature of the food that is served and, more importantly, because of the nature of the acoustics (which may be difficult to reproduce elsewhere).⁴

Rottigni, the chef/patron of Sensorium in Milan, Italy (<https://sensorium-milano.com/>), together with two additional staff who also serve the guests noted occasions when diners cried. For context, diners have not been observed to spontaneously break into tears for any of the other dishes in the Ayahuasca menu/experience, nor have they broken into tears for any of the chef's other culinary dining concepts. Informal

² Note that we plan to present an acoustic analysis of this track, as heard by diners in the Sensorium environment, in the second part of the study.

³ See Barrett et al. (2010), on the topic of music-evoked nostalgia.

⁴ According to the Tate's website, the concept of 'site-specific' in art is defined as a work of art designed specifically for a particular location and that has an interrelationship with the location (see <https://www.tate.org.uk/art/art-terms/s/site-specific>).



Fig. 2. The Serendipity dish. A) A spoonful of the dessert, a rice pudding dish; B) The wafer that is broken onto the dessert prior to service.

observation suggests that the actual figure is somewhere in the region of 10–20% of diners who actually cry, though this is just a preliminary figure. Ongoing research and data collection at the restaurant will hopefully provide a more precise estimate in the not too distant future. What is more, it should also be born in mind that the kinds of diners who may have the opportunity to attend such a unique multisensory dining event may well not be representative of the general population.

At Sensorium, the diners do not face each other, but rather all face the illuminated back wall of the dining area (see Fig. 1). This might also be assumed to make crying easier, as people may not feel so obviously the subject of another's gaze and attention (cf. Picó et al., 2020). Indeed, the phenomenon of emotional contagion (Herrando and Constantinides, 2021) means that once one diner starts to cry, others may tend to follow suite. Researchers have also measured the socio-chemical signals given off by audiences at the cinema (Williams et al., 2016), suggesting that they may contribute to the emotional experience of people in social settings.⁵ Bear in mind here only the fact that tears contain chemo-social compounds that affect the behaviour of those who smell them (Gelstein et al., 2011).

3. Crying in response to curated multisensory food and drink experiences

If one looks back over the popular press response to various curated multisensory food and drink experiences, then one finds a number of examples where commentators report having been brought to tears. For instance, a number of the diners at Heston Blumenthal's The Fat Duck restaurant in Bray (<http://www.thefatduck.co.uk/>) have cried in

response to the signature 'Sound of the sea' seafood dish (see Blumenthal, 2007, pp. 78–81; Blumenthal, 2008, pp. 206–215). This dish, which comes to the table looking like the seashore with sand, foam, seaweed, and seafood (sashimi), is accompanied by a conch shell, out of which dangles a pair of earbuds. The diners are encouraged to insert the earbuds before they consume the dish. On so doing, the sound of the waves gently breaking on the beach can be heard along with the sound of a number of seagulls squawking overhead. The multisensory experience that ensues has been reported to bring some diners to tears. For instance, just take Catherine de Lange's (2012) description that appeared in the *New Scientist* popular science magazine: "You are at a restaurant, enjoying a meal with friends, when the main course arrives. The plate of seafood in front of you looks incredible, but nothing prepares you for what happens next. After a few mouthfuls, a lump begins to rise in your throat and your eyes well up. By the time the waiter comes to take the plate away, you are weeping into a tear-sodden napkin. The secret ingredient? Seaside noises." Intriguingly, a version of this dish is currently served in Marrakesh (<https://lebarometre.net/menu/>).

This is obviously not something that normally happens when people hear the sounds of the sea, nor when they eat seafood, no matter how beautifully it has been prepared. Furthermore, this would appear to be the only dish on the menu at The Fat Duck that induce tears in the diner. In other words, it would seem to be something about the pairing of a particular tasting experience with matching auditory stimulation (semantically matching in some sense) that is so powerful (at least for some diners). It has been suggested that the extraordinary emotional response experienced by certain diners in response to the Sound of the sea dish might have been triggered by the feelings of nostalgia associated with childhood holiday memories by the seaside (e.g., Hirsch, 1992; Leonor et al., 2018; Spence, 2020).

Here, it would seem legitimate to question whether it is necessarily nostalgia that explains the crying response that has been documented (albeit anecdotally) in response to The Sound of the Sea dish. Other mechanisms might presumably also be at play. For example, awe at the chef's creation or the surprise response to the unexpected experience, or perhaps just liking the idea of trying something for which a chef, akin to an artist, is known for. However, awe at the chef's culinary creations would presumably be experienced in response to any number of the chef's star dishes. What is interesting in the case of the sound of the sea dish, as for the Serendipity dish, is that other courses on these multi-course tasting menus simply do not appear to induce the same crying response. What is more, the tastes/flavours or rice pudding (Serendipity), or sashimi (The Sound of the Sea), are certainly not the most

⁵ These researchers assessed the volatile chemicals that were present in the airflow vented out of a German cinema seating 250. Data were collected from a total of more than 9500 cinema-goers viewing one of 108 screenings of 16 different films (such as *Hunger Games 2*). A significant increase in 'audience emitted chemicals' associated with thrill and comedy scenes was detected. Williams et al. measured the volatile chemicals that were given off from skin and from breathing, including carbon dioxide and isoprene (C₅H₈). These researchers detected changes in the chemical composition of the atmosphere that could be linked to the on screen action. What these results hint at is while the perceptible malodour of other bodies once distracted from the entertainment for those watching early cinema, subliminally-perceived human chemosignals from the other members of the audience may, in fact, sometimes contribute subtly to enhancing the viewer's multisensory viewing experience (cf. de Groot et al., 2015; Golland et al., 2014).

technologically advanced nor creatively most awe-inspiring in terms of the construction of the dish, or the flavours therein. In fact, rice pudding can actually be considered a very mundane food. Furthermore, studies that have assessed the stimuli that give rise to ‘chills’ (frisson manifested as goose bumps or shivers) in different sensory modalities find that it is acidic fruits like biting into a slice of lemon or drinking grapefruit juice (Grewe et al., 2011; see also Jain et al., 2023).

Another example of people crying in response to a curated multi-sensory tasting experience comes from the 2015 Campo Viejo Streets of Spain festival event, in London. In this case, members of the public were invited to taste three different wines while listening to soundscapes that had been specially composed to match each of the wines by BAFTA-award-winning synaesthetic composer Nick Ryan. Intriguingly, one of the first journalists to report on the event noted that: “... the experience appears to take wine drinking to a new emotional level. The first volunteers to try listening to the scores while drinking said they felt transported to a different place. Others wept.” (Knapton, 2015, p. 7). Such crying behaviour can be considered as an example of an extraordinary emotional experience (Frey and Langseth, 1985; Lutz, 1999; Vingerhoets et al., 1997). It is not something that normally happens when people eat or drink (Breuer and Freud, 1957).⁶

In this case, and who knows, possibly also in the case of The sound of the sea dish, crying may be a response to the resolution (or unification) of seemingly incoherent sensations that gives rise to a sudden positively-valenced increase in processing fluency (Spence and Youssef, 2016). One might think of this as being caused by the release of emotion that can be associated with the ‘aesthetic Aha’ (Muth and Carbon, 2013). This is a positively-valenced experience that is occasionally reported in the visual arts when an initial discrepancy between expectation and reality resolves itself after a change of schema/expectations/world view (Muth and Carbon, 2013, 2016). Indeed, in a paper entitled ‘Tears and transformation’, it has been suggested that feeling like crying might be a meaningful indicator of insightful or “aesthetic” experience with (visual) art (Pelowski, 2015). Barbalet (2005, p. 139) has argued that the “function of weeping [is] to communicate to the self an incident of transformation.” The suggestion is that it acts to reduce the likelihood that the person who is crying will engage in other activities. This thereby means that it is more likely that the cognitive resources needed for reflection and reorganization will be available. Barbalet (2005, pp. 128–131) concludes that while “joyful weeping [may] register a positive transformation of self, just as tears of suffering register loss as a negative transformation of self,” in all cases, crying “can be regarded as essentially expressing transformation.”

Crying might also be considered as an emotional reaction due to a person’s identification with an external, aesthetically relevant stimulus (such as when we cry watching a movie or drama at the theatre because we identify with the actor, or when we listen to Beethoven’s Fifth symphony and we consider it as part of our identity). Something similar might happen with food, we kind of identify with a specific flavour, or rather dish, that somewhat mysteriously reflects/reveals a part of our (cultural, biographical) identity. Perhaps something similar happens to those who feel like crying in response to the Serendipity dish. That is, perhaps they find something of their own deepest identity reflected in the crossmodal harmony of flavours, sounds, colours, odours they are exposed to.

4. Nostalgia

Nostalgia (defined as a sentimentality for the past, typically for a period or place with happy personal associations) is undoubtedly a powerful emotion, one that tends to describe a positively-valenced

retrieval of pleasant autobiographical memories (Hirsch, 1992). Hepper et al. (2024, p. 755) provide the following definition: “Nostalgia is a social, self-relevant, and bittersweet (although mostly positive) emotion that arises when reflecting on fond past memories and serves key psychological functions.” While a wide variety of sensory cues, from ambient scents (Chu and Downes, 2002; De Bruijn and Bender, 2018; Petrattou et al., 2020; Reid et al., 2015; Willander and Larsson, 2006) to specific sounds and music, are capable of triggering nostalgia, food cues appear to be particularly powerful triggers of positively-valenced nostalgia (e.g., Green et al., 2023; Vignolles and Pichon, 2014). This phenomenon is often referred to as the Proustian moment (Brennan, 2013), given the nostalgic memories triggered in Swan’s Way (in Remembrance of Things Past) when the protagonist dips a madeleine into a cup of linden tea (Proust, [1922] 1960; see Ernst et al., 2021). Research into the sensory drivers of nostalgia suggests that food-related tends to be unambiguously positive (Green et al., 2023; Tweedy, 2015). It is interesting, therefore, to consider what role such nostalgic feelings may play in triggering the emotional crying of diners at the Sensorium Ayuhuasca experience. Intriguingly, food-evoked nostalgia has also been demonstrated to confer psychological benefits (Matsunaga et al., 2013).

There are certain foods that are commonly considered to be nostalgic (i.e., unlike the idiosyncratic example mentioned by Proust). However, which foods play that role would appear to depend, at least to a certain degree, on culture, with everything from pineapple cake shops in Asia (Lu et al., 2015) through to cereals in North America (Severson, 2016) being suggested as representing potentially nostalgic food experiences. In other words, the scent with the strongest nostalgic link likely depends on a diner’s cultural background: Bubble-gum scent in Greece, apparently; Pumpkin pie scent in North America (Reid et al., 2015). And although not often explicitly mentioned in lists of people’s comfort foods (Spence, 2017b), rice pudding would nevertheless appear to be a comfort food that is warming, sweet, and soft, while being school-related for many (see Appendix for the recipe of the Serendipity dish). As Chloe MacDonnell (2022) writes in *The Guardian* newspaper:

“Uncomfortable times call for comfort food. This winter, from restaurants to supermarkets and even social media, rice pudding is having a moment.

Sales of rice pudding are up at all the main food chains including 45% year on year at Aldi and 49% month-on-month at Ocado. Waitrose meanwhile reports a 54% increase in searches for tinned versions, while recipe searches are up 233%.

“I’m not surprised,” says Jeremy Lee, the head chef at Quo Vadis in London, who likes to top his with ice-cold milk and a dollop of raspberry jam. “It’s like a quick spoonful of central heating. It’s warming, soothing and delicious.”

“It’s a very evocative pudding” says Jonathan Woolway, the chef director of St John. “Now more than ever people want dishes that are familiar. Rice pudding ticks all the boxes. It’s nostalgic and comforting.”

4.1. Gustatory nostalgia from food

It is interesting to consider whether the texture, not to mention the historical reference/associations, that makes a food nostalgic, as much as its specific taste/flavour profile (Holtzmann, 2006; Reid et al., 2023). Comfort foods can also make one feel like one belongs (e.g., Troisi and Gabriel, 2011; though see Ong et al., 2015; and see Spence, 2017b, for a

⁶ Nor, or course, is it necessarily the kind of response that the serious scientist, worried about what their ethics panel will say, is all that well-placed to deal with (cf. Wolterstorff, 2003).

review of the literature on comfort foods).⁷ Given the possibly culture-dependent nature of comfort/nostalgic foods, it is relevant to note that the majority of the diners at the avant-garde Sensorium dining experience tend to be from the UK, North America, and Switzerland. Rice pudding is thus likely a relevant cultural reference to all these groups.

5. What role bodily awareness and low-frequency sounds?

Another potentially important component of the Serendipity multi-sensory dish/experience are the low-frequency sounds that stimulate the diners' bodies (see Burd, 2023). The first person experience of the dish by the second author while enjoying the Ayuhuasca dining experience was that such low-frequency vibrations appeared to make one more aware of one's own body. One can think of this as a kind of embodied multisensoriality (Burd, 2023). Low-frequency notes can be felt viscerally, and the use of vibration is now being used as a poetic practice in contemporary art (Burd, 2023), a fully embodied multisensory experience. Indeed, it is known that low-frequency sounds can elicit a visceral response in people (Henriques, 2003; Spencer, 2022; cf. Ali et al., 2023; Ley-Flores et al., 2022; Schoeller et al., 2023).⁸ Bear in mind here only how vibration is the first sense to develop in the womb, prior to the other senses (see Gallace and Spence, 2014; Pettman, 2017, p. 1). According to Burd (2023, p. 434), this might, in turn, trigger *anamnesis* (Augoyard and Torgue, 2005), the name given to the notion that sound vibrations can trigger memories, especially sensorial and affective fragments of consciousness. Burd (2023, p. 436) has recently discussed the relationship between sound-vibration and affect (see also Bull and Black, 2005). At the same time, however, it is also worth noting how low-frequency sounds can also influence ratings of the body of red wine (Burzynska et al., 2019).

6. Ritualistic elements

Another potentially relevant aspect of the dish is that after the bowls of rice pudding are brought to the counter, the serving staff deliberately and thoughtfully break a white wafer and lay the pieces over the rice pudding (see Fig. 3). Why? This salient is perhaps reminiscent of the white Oplatek wafer that is served at Christmas in Poland and elsewhere in Eastern Europe (https://www.bbc.co.uk/herfordandworcester/features/2002/12/poland_01.shtml). It may also remind Roman Catholics of the Eucharist wafer. Indeed, the ritualistic (habitual and/or stereotypical) behaviours that are associated with certain foods is an intriguing area of research in food experience design (Norton, 2024; Spence, 2021). The breaking of the wafer may thus have a symbolic meaning that is consciously (or sub-consciously) picked-up by the diners, depending on their cultural/religious backgrounds. The resemblance between the traditional rite of the Catholic mass (and several other Eucharistic rituals) and the way in which the diners receive the meal at Sensorium should perhaps also be emphasized. Consider only how in both cases, people receive food staying/sitting in line with the chefs and staff in front of them acting as white-dressed priests delivering eucharistic wafers.

7. Timing and the narrative arc

Diners tend to be somewhat apprehensive at the start of a mysterious/unfamiliar experiential meal, such as presented by Ayuhuasca at



Fig. 3. The wafer in front of the diner just as it is about to be broken.

Sensorium. The food is likely to be (and is indeed) unfamiliar with a range of novel ingredients and preparation techniques used. As such, the diners likely need time and space to relax into the meal/experience (Spence, 2017a). It would therefore seem more likely that they would be comfortable in letting themselves cry emotionally once they are relaxed and feel secure about the experience, and their role within it. Note that much the same logic dictated the presentation of the insects on the entomophagy-infused Mexican-themed menu at chef Jozef Youssef's Kitchen Theory a few years ago (see Youssef and Spence, 2021). In particular, the first couple of courses were intentionally made insect-free to give the diner time to settle in, and relax themselves. Similarly, this temporal aspect to the diner's emotional state was also why the shocking 'bloodied heart' dish is served at the end of the meal (i.e., as a dessert; see Spence and Youssef, 2022).

One other point to consider here is that Serendipity follows the Caotic Quantum dish. The latter is intentionally very jarring, with a number of seemingly incongruent elements thrown together both on and off the plate. As such, this dish which is designed to coincide with the trough of the diner's emotional journey (cf. Reagan et al., 2016), and cannot easily be resolved as a meaningful multisensory experience by the diner. Hence, this means that the emotional release that comes in the dish that follows (Serendipity) is likely to be all the more cathartic. Note that the entire experience is programmed to complete to last for around 2 h as that would appear to be the limit of many diners' attention.

Previous research has indicated negative mood state as a momentary trigger of nostalgia (Wildschut et al., 2006). There are a narrow range of emotional arcs/journeys that tend to capture the majority of cinematic experiences (see Spence, 2017a, 2018). In this case, the initial rise, fall, and then the final rise in emotion (this known as the 'Cinderella' emotional arc; one of six standard emotional arcs that are found in storytelling; Reagan et al., 2016). The rice pudding dish is thus served during the final emotional ascent. Note that studies of crescendo in musical dynamics support the idea that this dynamic increase is typically associated with an emotional crescendo (see Bannister, 2020; see also Grewe et al., 2011). Clearly, it is not that people never cry earlier in an artistic (or media) experience (Barthelmäs et al., 2022), as hinted at by the response of diners to the Sound of the sea dish, which arrives

⁷ It is interesting to consider what role the restorative power of nostalgia: may have had given the epidemic of loneliness that resulted from the COVID-19 pandemic (Zhou et al., 2022).

⁸ The short-term use of low-frequency noise is unlikely to have the negative effects on human health that have been documented following long-term exposure (Alves et al., 2020).

earlier on the menu at The Fat Duck, and which happened to some of the attendees at the Campo Viejo event mentioned earlier. Nevertheless, it is presumably the case that crying tends to be more frequent later in unfamiliar experiences, no matter whether or not they involve food.

8. Conclusions

As it happens, Serendipity would appear to be a serendipitous name for a dish, or rather a multisensory dining experience, that unexpectedly brings many diners to tears. Emotional crying, note, is a uniquely human behaviour (Vingerhoets, 2013; Vingerhoets et al., 2000; cf. Becht and Vingerhoets, 2002). It can be classed as an example of an extraordinary multisensory food experience. This article examines a number of the factors that may be at play giving rise to such an extraordinary response to food. Much like the Autonomous Sensory Meridian Response (ASMR), it is likely that consumers would resent an overly contrived/constructed media content as an elicitor of a positive response (Barratt et al., 2017), and hence the unplanned nature of the emotional response triggered in some diners may well be part of the dish's emotional appeal. Ultimately, of course, it should also be noted that the rather exclusive, expensive, and esoteric nature of the Sensorium Ayuhuasca dining experience offered in Milan means that there is presumably some bias in the kinds of diners who may have the opportunity to attend such a unique multisensory dining event. As such, the incidence of emotional reactions observed in response to the serving of the Serendipity dish might not necessarily be expected to be representative of the general population.

Much the same is likely to be the case for nostalgia, given the evident commercial potential of triggering such positively-valenced feelings (see Hamilton and Wagner, 2014). There is also an important question over the role of nostalgia and extraordinary emotional experiences in the 'Sticktion'⁹ that a dining event has (LaTour and Carbone, 2014; Spence, 2017a). More generally, it is interesting to consider the role of nostalgia, no matter what the cause, to people's intentions to revisit a particular dining establishment (Chen et al., 2020; Hwanga and Hyun, 2013). Currently, data is being collected in order to quantify the emotional response of diners to the Serendipity dish, and the impact that this emotional experience has both on their enjoyment of the dish, as well as their memory of the meal.

Future research will hopefully elucidate whether there are certain specific sensory elements (such as the voices that are heard over the loudspeakers, the bodily vibrations elicited by the music, the ritualistic elements of the dish's service, and/or the flavour profile of the food itself) that are capable of triggering the extraordinary emotional response (of crying) in certain diners, or whether instead it is more of a Gestalt experience that emerges from the combination of a number of the elements into a unified emotional multisensory whole (see Spence, 2020). Such ongoing research will also hopefully help to determine whether the diners who cry in response to the Serendipity dish are really crying over food, or whether the experience is best described as crying in response to a total multisensory experience/encounter that just so happens to involve food as but one component of the total encounter.

CRedit authorship contribution statement

Federico Rottigni: Writing – original draft, Project administration, Methodology, Conceptualization. **Charles Spence:** Writing – original draft, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence

the work reported in this paper.

Data availability

No data was used for the research described in the article.

Appendix

Rice pudding
100 g; Carnaroli rice
210 g; Water
12 g; Sugar
3 g; Salt
1 g; Madagascar vanilla
300 g; Semi-whipped cream
Semi-candied kumquats
100 g; Cleaned and sliced kumquats
5 g; Sugar
Chestnut honey fake-meringue
80 g; Water
45 g; Chestnut honey
40 g; Sugar
25 g; Powder albumin

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⁹ Sticktion refers to those elements of a dining experience that stick in the mind of the diner.

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