An Annotated Bibliography on Taste

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TOUR3107 Tourism Project A, Semester 1

May 28, 2012
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1. INTRODUCTION

This annotated bibliography is designed to give readers a range of reading materials and ideas in relation to taste perception as an event design technique. The research question for the project is:

‘How can taste be used as an event design technique to influence or modify audience behaviour and/or perception of the event experience?’

The readers will be able to gain new knowledge and ideas in event design and enhance the existing ones through this research. Also this research will be useful for stimulating creative thinking of readers to find new approaches to design events and festivals using taste as an event design technique.

1.1 Research aims

The purpose of this annotated bibliography is to explore the topic in-depth by collecting information from various sources and critically interpret the information. The other purpose of the annotated bibliography is to provide readers with abstracts and evaluations of information sources which will assist readers in further research.

The specific objectives of this annotated bibliography are the following:

- Identify taste perception
- Discuss how can event designers apply the knowledge in event design

1.2 Authorisation

As authorised by Dr. Jo Ankor and Dr. Steve Brown on March 1st 2012, due for submission on May 28th 2012.

1.3 Background

1.3.1 Taste

Taste is one of the five senses of the human body; it is the ‘ability to respond to dissolved molecules and ions called tastants’ (Bandgar, Yadav & Patil, 2009, p.). Conventionally, it has been believed that ‘the human sense of taste perceives four distinctive tastes: sweet, sour, salt, and bitter’ (Gorman, 1964, p.15). However, the resent studies have introduced two other primary tastes: umami and fat in addition to four primary taste qualities (Coren, Ward & Enns, 2004). Groups of cells on the tongue called taste buds are responsible for distinguishing basic tastes which people
experience by dining and drinking experiences (Gorman, 1964; Coren et al., 2004). However the sense of taste alone only perceives the six basic tastes and it is different from flavour (Gorman, 1964). When people have a dining experience, they perceive both taste and smell which will be processed in the brain as flavour (Gorman, 1964; The Taste Science Laboratory, 2011). The taste/flavour helps people to assess the food they are consuming and it is a vital element in food experience (Gorman, 1964; Coren et al., 2004; The Taste Science Laboratory, 2011).

1.3.2 Event Design

Steve Brown, an event designer and the Head of Tourism at Flinders University, defines ‘Event Design is the creation, conceptual development and design of an event to maximise the positive and meaningful impact for the event’s audience and/or participants’ (as cited in Getz, 2007, p.208). Event design considers experiences of the audience as a primary component of the event and event designers create the event assessing what is the best for audience (Brown, 2005; Getz, 2007). Brown states that ‘creativity is based on the audience’s experience and the audience experiences the event through their five senses and through the layers of ritual and meaning that are enmeshed within it’ (Brown, 2005, p.3). While creativity and experience are emphasised, it is also important for event designers to apply design principles, concepts and techniques in event design to create successful events (Brown, 2005). Event design makes the best use of experience of the audience through five senses as event design technique (Brown, 2005; Getz, 2007).

1.3.3 Taste as an Event Design Technique

As it was mentioned previously, five senses of the human body are essential elements in event design for both creating meaningful experiences and increasing potential to run successful events (Brown, 2005; Getz, 2007). Getz (2007) states that taste is ‘the critical factor in dining experiences, and at food festivals, taste can be manipulated in other event environments to stimulate emotional and behavioural responses’ (Getz, 2007, p.217). Indeed, taste is one of essential five senses which the audience use while they experience the event (Getz, 2007). The sense of taste and event design can be combined together and event designers should apply taste as an event design technique as it will be effective for both enhancing the audience’s event experience and running a successful event.
1.4 Methodology

For this bibliography, the general selection criteria were used, selecting information from sources such as academic articles, books, and Internet resources. There was difficulty gathering references for the bibliography as there is a severe lack of materials and researches on taste as an event design technique even though event designers and scholars recognise taste as a valuable tool in event design (Getz, 2007). Therefore the research required broad range of information sources to gather references and the criteria were chosen to allow researchers to look at various information sources.

2. FINDINGS

Conventionally the sense of taste has been used in events and festivals through dining experiences. Even though taste is known as one of sensory event design tools and has been used broadly in events and festivals, it is difficult to declare how taste can be utilised as a design tool other than catering, due to a lack of studies focused on taste and event design. Even though there were difficulties in researching, the study demonstrated that taste is influenced by various elements such as colour, sound and smell which are also used as design tools in events and festivals. Taste alone is useful as a design tool; it is a vital element of audience experience at events and festivals. Yet taste may be able to influence audience behaviour and perception of the event experience more effectively alongside the other design elements. Also the research has found that Professor Charles Spence (University of Oxford, 2009) from Oxford University has published various articles on senses which may be beneficial for researchers in the future. This bibliography does not provide a complete overview of information sources for taste and event design; however, it may be able to prompt creative ideas of event designers and help further research by developing a foundation for further research.
3.1 Taste

**Overview:**
This highly acclaimed book provides a theoretically balanced introduction to the study of basic physiology and sensory responses. The authors survey a broad range of topics and present different theories and perspectives in controversial areas.

* Demonstrations allow the reader to experience many of the perceptual phenomena firsthand using common household items or illustrations in the book.
* Describes natural instances of perceptual phenomena to bring the subject matter to life (Anonymous, 2012).

In chapter 7 of this publication, the authors explain the taste perception in different sections as the followings: taste stimuli and receptors, neural pathways and responses, taste thresholds and adaptation, and taste intensity. It is important for researchers to gather fundamental information when they start the research; therefore, the chapter will be useful for researchers as it provides a framework for understanding what taste is and how the sense of taste works in human. The information given in the chapter is up-to-date; therefore it is a reliable academic source to draw information from.

**Abstract:**
When eating or drinking, the individual experiences a multitude of sensations, including taste, smell, touch, temperature, sight, sound, and sometimes pain/irritation. This multi-faceted sensory experience is the underpinning of perceived flavor, although certainly some sensations contribute more than others. This paper reviews how all these sensations interact, both on a perceptual and a physical level, and discusses the resulting impact each has on flavor ratings. Interactions between taste and smell, and interactions of the remaining sensations will be discussed. Finally, practical implications of these interactions for sensory evaluation are discussed.

Delwiche discusses different types of perceptual interactions which influence taste perspective. The vocabulary used in the article is reader-friendly; it may rather intrigue readers and would not put off scholars or event designers with non-scientific background. The article gives ideas of how different perceptual interactions contribute to the perception of taste, and those factors would lead scholars to research further on a specific perceptual interaction on perceived taste, depending on their interest and how they would like to use the sensory interaction as an event design tool. The article is a guideline for developing creative ideas to use taste as an event design tool.

**Abstract:**
The aims of this paper are to describe the rules of the cortical processing of taste and smell, how the pleasantness or affective value of taste and smell are represented in the brain, and to relate this to the brain mechanism underlying emotion. Much of the fundamental evidence comes from studies in non-human primates, and this is being complemented by functional neuroimaging studies in humans.

In this publication Rolls examines how smell, taste, texture and temperature of food are processed and represented in the brain and how those factors influence appetite of human. The article may be inaccessible for those who have little acquaintance of medicine as technical terminology is extensively used in the examinations and descriptions. However the examination will be valuable for gaining understanding of how the sense of taste works and also the different sensory perspectives and factors which are relevant to taste perception and appetite of human. The extensive references in the article would be useful for further research on taste perspective and the interaction between taste perception and other sensory perceptions.

**Abstract:**
Chemosensory systems, of which taste and smell are specialized forms, detect both soluble and volatile chemicals. The senses of taste and olfaction can affect social behaviors, including feeding, territoriality, and mating. Taste and smell are also used in selection and evaluation of flavor and in avoidance of potentially harmful compounds. Through the cephalic phase of digestion, taste also affects certain exocrine and endocrine secretions, thus affecting nutrition and metabolism and the overall quality of life.

The authors investigate taste and smell perceptions by looking at olfactory system and basic tastes, such as sweet, bitter, sour, salty and umami which is taste of amino acid. Taste perception is influenced by not only taste buds but also texture, temperature, and pain that people feel on their tongue by consuming food. The information stated in the publication will form the grounding of the research and further investigation on taste.

This website provides good and clear description of what taste is. The style of writing and vocabulary used in the website makes it easier for readers to understand the sense of taste. The website helps researchers to build groundwork for the research. Also the website presents several research projects on taste perception which may engage the researchers’ interests.
3.2 Food Festivals and Events

**Abstract:**
An activity that has been found to enhance wine tourism opportunities is wine and food festivals. This article examines how, through the manipulation of such festival attributes, festival managers can foster positive consumer perceptions of products central to the festival. The article first describes the attributes that define a festival and then, using the Moonlight Wine Tour festival as a case for study, explores how much of an influence certain festival attributes have on shaping visitors’ perceptions of the wine on show. An ANOVA determines that five festival attributes are effective predictors of creating positive changes in people’s perceptions, while one attribute has a negative effect. A binomial generalized linear model is then created for use in managerial situations by specifying which combined set of attributes are the most significant in creating positive and negative changes in consumer perceptions.

In this publication Axelsen and Swan explain that there are festival attributes which influence consumer perception either positively or negatively in food and wine festivals. The authors chose the Moonlight Wine Tour festival as the setting for their case study to examine the relationships between attributes of the festival and impact of the attributes on consumer perception of the products provided at the festival. The four attributes of festivals which have positive influence on consumer perception are the followings: unique and different experiences, atmosphere, new experiences, and hype and glamour. On the other hand negative attributes of festivals are supplementary food and hospitality features provided with the main product. Even though this journal article does not relate to the research on taste as an event design tool, it is possible for event designers to apply this knowledge to design festivals which use food as a core feature and enhance positive food experience of consumers attending food festivals.

Abstract:
Food festivals can offer a whole host of sensory experiences for visitors while engaging with a destination and its people. Understanding visitors’ motivations to attend a specific food festival is beneficial for both community developers and festival professionals when implementing an effective marketing strategy in order to promote the event. This study applied a festival motivation framework incorporating three interacting components as the foundation to study food festival motives. The factor analysis results revealed six delineated motivational dimensions of visitors attending a regional food festival in Texas. Findings indicated patrons attended the food festival for generic leisure and travel needs, event-specific experiences, and extrinsic motives. Marketing implications are discussed along with the findings.

Chang and Yuan examine different characteristics in audience motivation for attending food festivals. It is very important for event designers to understand factors which influence motivation of audience visiting festivals and events. The journal article refers to works on food festival motivations and supports findings from previous studies in the same field with reliable evidence. Food has become an important medium which enhance experience for the audience. Food sensory experience allows audience to not only engage but also share touristic experiences with the festival, the host community and other audiences through food. Alongside with leisure activities and atmosphere, food sensory experience could create unique theme of festivals and events. The information provided in the article will be valuable and it will form the basis of the research.

**Description:**
Food and Wine Festivals and Events Around the World is a pioneering text that recognises the importance of this rapidly growing aspect of the tourism industry. Food and wine festivals and events play a significant role in rural and urban development and regeneration and the impacts of these events can be far ranging at a social, political, economic and environmental level. This innovative book recognises the development of food and wine festivals as a part of regional and national tourism strategies and uses international case studies to illustrate practice and contextualise theory. Bringing together an international contributor team of experts, this is the first book to study this profitable and expanding area of the tourism industry and provides a unique resource for those studying in the fields of tourism, event management and culinary arts (Anonymous, 2012).

This book is an introduction to food festivals and events which are the one of the rapidly growing markets in the event industry. The publication gives readers an overview of what food and wine festivals and events are and how taste has been used in festival and events. Therefore the book helps researchers to appreciate the role of taste in festivals and events and the knowledge will create a foundation of the research. The authors examine different types of food and wine festivals and events alongside various contributors; a number of case studies are discussed and each of them provides extensive references which may be useful for readers to identify relevant source of information for future research.

**Abstract:**

**Purpose** – The purpose of this paper is to review the contribution of food to tourism with particular reference to the importance of food tourism and the factors which are critical to its success, highlighting topics for future research.

**Design/methodology/approach** – Findings are based on analysis of academic and practitioner materials in the public domain collected from a range of print and electronic sources.

**Findings** – Food is the subject of various types of tourism product and is a common theme in marketing, by businesses and destination authorities. Tourism in which food plays a primary or supporting role is already popular and has good prospects, but there are also challenges for the food and tourism industries to overcome, which vary with location.

**Practical implications** – Opportunities are suggested as well as some of the problems to be resolved by suppliers and marketers if the potential of food tourism is to be fully exploited.

**Originality/value** – The paper is a reassessment of the significance of food tourism as a product and market and a reminder of possible pitfalls regarding its successful sales and marketing.

In the context of taste and event design, food is an essential element for the research as it is one of the substances which influence the taste perspective. Even though the article doesn’t directly relate to taste and event design, it assists to gain fundamental idea of a relationship between food and tourism. Food, as a vital tourist attraction and resource, is used as major part of tourist experiences in the tourism industry since food is the main motivator of audiences visiting food festivals. Food festivals and events are mentioned and discussed in the article; the information about the contribution of food to festivals and events would be relevant for the background of the research topic.

Abstract:
The purpose of this study were to experiential marketing, satisfaction and loyalty, then to understand the influence of this three variable. A case study was in the Taiwan Coffee Festival. 335 valid questionnaires were collected and used descriptive statistics, and structural equation modeling to analyze and verify the data, and measure the relationships between the constructs. The results of relationship model show that experiential marketing has positive effect of satisfaction, and satisfaction has positive effect of loyalty, experiential marketing has not positive effect of loyalty.

Yang discusses audience behaviour in event tourism using an example of Taiwan Coffee Festival to demonstrate effectiveness of experiential marketing. Yang explains that experiential marketing of taste in the festival has been used as a tool to enhance audiences’ experience by stimulating their senses in the context of tourism. Experience in event and festivals are highly valued and emphasized by consumers and it results in consumer loyalty and satisfaction. The journal article refers to works on event design and provides a successful example of implementation of taste as an event design tool in food related festivals.
3.3 Taste and Colour

Overview:
Color is probably one of the most important tools in the event producer's toolbox — the proverbial equivalent of a carpenter's screwdriver or hammer. It's versatile and flexible and, depending on the occasion, can be scaled in a number of different ways. Dramatic use of a single color can deliver a real knockout punch when guests arrive at an event. A more subtle application of color is like a velvet hammer: soft and powerful at the same time. Over the last few years, color has been more important than ever as a tool because the broad economic downturn has required all of us to be much more creative in designing memorable events with shrinking budgets. Fortunately, technology and lighting have given us many more options and new effects that integrate color and can double as décor.

This publication is an interesting online magazine article reporting the use of colour as an event design tool to enhance audience experience at events. In addition to primary information about colour in event design, effectiveness of ‘edible colour’, which stands for colour of food and beverages, is also introduced as an important factor in event design. However, it is important to note that the food still needs to be appealing therefore the colour arrangement should not be applied on food when there is a possibility of ruining the presentation of food. This publication will not form the basis of the research on taste as an event design tool; however, it will be useful supplementary information to appreciate important elements of event design, food and colour.

**Abstract:**
The authors examined preconceptions of taste based on color with a questionnaire administered to 45 college students. The questionnaire related 8 tastes with 10 colors. The results suggested that only a limited number of colors are positively associated with preconceptions of taste. However, certain colors (e.g., red and green) showed consistent patterns of association with taste. Implications for future research examining an indirect relationship between color and taste are discussed.

In this publication, the authors explain colour-taste interactions by examining particularly whether colour of food has impacts on preconception of taste of food or not. The authors use soft drinks as a target of the study to demonstrate how different colours of drinks manipulate people’s taste preconceptions. Even though the authors assert additional studies in the field need to be done, the results of the experiments are interesting. As colour plays significant role in event design, it is possible for event designers to combine colour and taste together and apply them as an event design technique to create memorable audience experience.

**Abstract:**
Our perception of food is affected by the sensory properties of the food itself, together with our expectations about the food and other contextual factors. The latter are especially relevant in the restaurant setting, where appearance factors, such as the presentation of the food on the plates can dramatically affect food liking and consumption. However, to date, not much emphasis has been placed on the effect of the appearance of the accessories on our perception of food. The aims of the present study were therefore to test the extent to which the appearance properties of the plate influence the taste/flavor experiences of the food served on it. Specifically, we investigated the influence of the color (black or white) and shape of the plate on the perception of flavor intensity, sweetness, quality, and liking for identical strawberry mousse desserts. The results demonstrated that while the color of the plate exerted a significant influence on people’s perception of the food, the shape of the plate did not. In particular, when the mousse was served from a white plate, it was perceived as significantly more intense and sweeter, and was also liked more. These results therefore demonstrate the importance of the color (if not the shape) of the plate on people’s perception of food.

Piqueras-Fiszman et al. use data from their experiments at the gastronomic research centre in Spain to examine influence of appearance of accessories on perception of food. The examinations focused on assessing shapes and colours, particularly black and white, of accessories. The authors find the colour have influence on taste perception while the result did not demonstrate impact of shape on taste experience. The article is fascinating and introduces the new field in study of taste perception. The article will be beneficial source of information for the research as it demonstrates the taste perception is influenced by the colour. Event designers would be able to apply the knowledge to enhance or moderate taste experience of audience at the event.

**Abstract:**
Color conveys critical information about the flavor of food and drink by providing clues as to edibility, flavor identity, and flavor intensity. Despite the fact that more than 100 published papers have investigated the influence of color on flavor perception in humans, surprisingly little research has considered how cognitive and contextual constraints may mediate color–flavor interactions. In this review, we argue that the discrepancies demonstrated in previously-published color–flavor studies may, at least in part, reflect differences in the sensory expectations that different people generate as a result of their prior associative experiences. We propose that color–flavor interactions in flavor perception cannot be understood solely in terms of the principles of multisensory integration (the currently dominant theoretical framework) but that the role of higher-level cognitive factors, such as expectations, must also be considered.

The influence of colour on food has been investigated extensively; however, Shankar, Levitan and Spence from University of Oxford take a cognitive approach to evolve the study on colour-flavour perception. Their research reveals that people’s expectation of taste is based on colour cue which is highly influenced by people’s previous experiences such as culture and learned associations. Therefore colour of food has great impacts on expectation of taste experience on humans. The article is accessible and provides fascinating factors of colour-taste interactions on human. The information given in the article may be able to prompt event designers to create a wow factor by using effects of colour on taste in, perhaps, catering in events and festivals.

**Abstract:**

Abstract In this paper, we review the empirical literature concerning the important question of whether or not food color influences taste and flavor perception in humans. Although a superficial reading of the literature on this topic would appear to give a somewhat mixed answer, we argue that this is, at least in part, due to the fact that many researchers have failed to distinguish between two qualitatively distinct research questions. The first concerns the role that food coloring plays in the perception of the intensity of a particular flavor (e.g., strawberry, banana, etc.) or taste attribute (e.g., sweetness, saltiness, etc.). The second concerns the role that food coloring plays in the perception of flavor identity. The empirical evidence regarding the first question is currently rather ambiguous. While some researchers have reported a significant crossmodal effect of changing the intensity of a food or drink’s coloring on people’s judgments of taste or flavor intensity, many others have failed to demonstrate any such effect. By contrast, the research findings concerning the second question clearly support the view that people’s judgments of flavor identity are often affected by the changing of a food or drink’s color (be it appropriate, inappropriate, or absent). We discuss the possible mechanisms underlying these crossmodal effects and suggest some of the key directions for future research in order to move our understanding in this area forward.

Although numerous academics have studied about colour-taste interactions in human taste perception in past 70 years, Spence et al. dispute how the previous studies failed to examine the interactions. The authors research colour-taste interactions by answering two qualitatively distinct research questions. The authors use evidence from their research to support their discussions and refer to previous studies on the same topic. As the study demonstrates, colour-taste interactions in humans are highly influenced by many factors in addition to colour itself and colour-induced flavour expectation leads to misidentification of flavour. Taste misidentification could be used as an event designating tool to deceive audiences’ expectation towards food or beverages, and enhance or moderate taste experience.
3.4 Taste and Sound

**Abstract:**
We report an experiment designed to investigate the consequences of manipulating the pitch of the background auditory stimulation on the taste of food. The participants in the present study evaluated four pieces of cinder toffee while listening to two auditory soundtracks, presented in a random order. One soundtrack was designed to be more crossmodally (or “synaesthetically”) congruent with a bitter-tasting food whereas the other soundtrack was designed to be more congruent with a sweet-tasting food instead. The participants rated each sample using three computer based line scales: One scale was anchored with the words bitter and sweet. The second scale required participants to localize the taste/flavour percept elicited by the food (at the front vs. back of their mouth). The third scale involved participants giving a hedonic evaluation of the foodstuff. As expected, the cinder toffee samples tasted while listening to the presumptively ‘bitter’ soundtrack were rated as tasting significantly more bitter than when exactly the same foodstuff was evaluated while listening to the ‘sweet’ soundtrack instead. These results provide the first convincing empirical demonstration that the crossmodal congruency of a background soundtrack can be used to modify the taste (and presumably also flavour) of a foodstuff.

Despite the fact that there have been studies on associations between sounds of certain pitches and the tastes and flavours, the scientists have not made the impact of music or soundtrack on taste perception sufficiently clear. Crisinel et al. examine whether it is possible for music to influence perceived taste of food. It is a fascinating study indeed and the article may be useful for event designers, as it is proved that music modifies the perception of taste. Since both music and taste are part of creative event design tools, especially in dining situations, combination of those two perceptions will enable event designers to create an event which influence audience perception of food experience.

*Abstract:*

We investigated the effects of auditory background noise on the perception of gustatory food properties (sugar level, salt level), food crunchiness and food liking. Participants blindly consumed different foods whilst passively listening to either no sound, or quiet or loud background white noise. The foods were then rated in terms of sweetness, saltiness and liking (Experiment 1) or in terms of overall flavour, crunchiness and liking (Experiment 2). Reported sweetness and saltiness was significantly lower in the loud compared to the quiet sound conditions (Experiment 1), but crunchiness was reported to be more intense (Experiment 2). This suggests that food properties unrelated to sound (sweetness, saltiness) and those conveyed via auditory channels (crunchiness) are differentially affected by background noise. A relationship between ratings of the liking of background noise and ratings of the liking of the food was also found (Experiment 2). We conclude that background sound unrelated to food diminishes gustatory food properties (saltiness, sweetness) which is suggestive of a cross-modal contrasting or attentional effect, whilst enhancing food crunchiness.

Whilst there has been little research conducted on the relationship between background noise and food perception, Woods et al. conduct further research on effect of background noise on people’s food perceptions. Even though the article addresses scientists, presentation of the study is straightforward and it is accessible to readers who are likely to be interested in perception of food and taste. In events and festivals, situations where food and music unite are very common. In terms of event design, the results of the study allow event designers to select the types of background music depending on food provided and improve food experience of audience at events and festivals.
3.5 Taste and Smell

Abstract:
Taste and aroma interactions occur each time we eat or drink. In the laboratory, smell and taste stimuli can be physically separated, whereas under normal conditions the consumption of foods and beverages results in the simultaneous perception of aroma and taste coupled with tactile sensations, all of which contribute to an overall impression of flavor. Tastes can increase the apparent intensity of aromas; conversely, the perceived intensity of tastes is increased when we taste flavored solutions, especially when there is a logical association between them, such as between sweetness and fruitiness. Recent investigations of factors that affect aroma and taste interactions are summarized in this brief review.

In this article Noble conducts a research on taste-aroma interactions. It is a quite dated article yet it will be a valuable source of information for event designers to appreciate sensory interactions. Taste and aroma are closely related and they mutually enhance each other; therefore, combination of two senses enhance food and beverage experience. As smell is also one of sensory tools used in event design, understanding taste-smell interaction would be necessary for event designers to apply those two senses in the event design to create long-lasting impressions on audiences.

**Abstract:**

Texture–taste, texture–aroma and aroma–taste interactions were examined in custard desserts varying in viscosity (at identical composition), sucrose level and aroma nature. All reciprocal interactions were investigated, with each binary interaction addressed through an independent sensory study. Rheological, in vivo aroma release and sucrose release measurements were run in parallel to control for a possible physico-chemical origin of these interactions. Observed interactions were found to be dependent upon the nature of the sensory modalities involved; physico-chemical mechanisms could only in some instances entirely explain these interactions. Taste and aroma did not impact texture perception and this was linked to the fact that rheological properties of the desserts were not modified. Texture affected the taste intensity but not the aroma intensity. Discrepancies between these sensory results and the physicochemical results were observed. Aroma influenced taste perception and vice-versa, likely through cognitive mechanisms.

Based on the experiments of custard desserts, Tournier et al. set out to examine texture–taste–aroma interactions. Whilst the study is referred to scientists, the information given in the sections discussing the experiments in the article may be challenging for those who have little interests in scientific studies. Yet, the authors provide rich descriptions in discussion section of the article therefore it makes easier for readers to understand the results of the experiments. The article does not particularly relate to the event design; however, it may be useful for event designers when they choose catering for their events so that they would be able to select foodstuff which either enhance or moderate food experience of audience.
3.6 Others

**Abstract:**
Emotions experienced by healthy individuals in response to tasting or eating food were examined in two studies. In the first study, 42 participants reported the frequency with which 22 emotion types were experienced in everyday interactions with food products, and the conditions that elicited these emotions. In the second study, 124 participants reported the extent to which they experienced each emotion type during sample tasting tests for sweet bakery snacks, savoury snacks, and pasta meals. Although all emotions occurred from time to time in response to eating or tasting food, pleasant emotions were reported more often than unpleasant ones. Satisfaction, enjoyment, and desire were experienced most often, and sadness, anger, and jealousy least often. Participants reported a wide variety of eliciting conditions, including statements that referred directly to sensory properties and experienced consequences, and statements that referred to more indirect conditions, such as expectations and associations. Five different sources of food emotions are proposed to represent the various reported eliciting conditions: sensory attributes, experienced consequences, anticipated consequences, personal or cultural meanings, and actions of associated agents.

The authors explain how experience of tasting or eating food influences people’s emotion using the data gained through experiments which they conducted. Food experience is source of pleasant emotions such as satisfaction, enjoyment, and desire. On the other hand people also experience unpleasant emotions such as boredom, disappointment, dissatisfaction by food experience. Moreover, emotions people experience from food consumption are manipulated by not only the food itself but also many factors associated with the food such as social and physical experiences. The article has limitations and the authors indicate needs for further research; however, the information provided in this article would be informative for event designers to enhance and/or influence emotion of audiences by using taste.

Abstract:
Many studies deal with the impact of texture on aroma and taste perceptions, but only a few address their temporal evolution during consumption. In order to better understand perception mechanisms, the objective of this study was to investigate the impact of candy texture on aroma and taste perception dynamics using both profile method to obtain global information and the Temporal Dominance of Sensations (TDS) method for dynamic information. Results showed that texture (ranging from liquid to hard gels) influenced aroma and taste sequences perceived during consumption. For example, a hard candy (15% gelatin) was described as having an initial “butter” sensation, followed by a “strawberry” perception, whereas a soft candy (2% gelatin) was described successively by sour, “green”, and “strawberry” perceptions. Despite the different sensory mechanisms involved in evaluating global or temporal sensations, similar results were obtained by TDS and profile methods concerning perceived intensities of aromatic and taste perceptions. They highlighted a decrease in aroma and taste intensities when firmness increased. To conclude, the additional information obtained with TDS concerning the temporal dimension of perception confirmed the interest of such a method to better understand the dynamics of the phenomena involved in texture–flavor interactions.

In the study of aroma and taste perception, Saint-Eve et al. quest for further evidence of the perception by examining how texture of food influences aroma and taste perception in humans. The research is descriptive and includes various numerical formulas; therefore, the article may be inaccessible for readers who do not have scientific background or study background in the same field. Nonetheless, the results of the study helps researchers to understand how taste perception works and what factors have impacts on taste perceptions in addition to the introduction of texture-flavour interactions.

Abstract:
Daily experience tells us that temperature has a strong influence on how we taste. Despite the longstanding interest of many specialists in this aspect of taste, we are only starting to understand the molecular mechanisms underlying the temperature dependence of different taste modalities. Recent research has led to the identification of some strong thermosensitive molecules in the taste transduction pathway. The cold activation of the epithelial Na+ channel and the heat activation of the taste variant of the vanilloid receptor (TRPV1t) may underlie the temperature dependence of salt responses. Heat activation of the transient receptor potential channel TRPM5 explains the enhancement of sweet taste perception by warm temperatures. Current development of methods to study taste cell physiology will help to determine the contribution of other temperature-sensitive events in the taste transduction pathways. *Vice versa*, the analysis of the thermodynamic properties of these events may assist to unveil the nature of several taste processes.

Talavera et al. explain how perception of taste is influenced by temperature of food and beverage by referring to previous studies on the topic. The investigation focuses on assessing the interactions of salinity and sweetness and temperature. The authors address lack of study on temperature-taste interaction in the field and needs for further research. As it is essential for researchers to be aware of the fundamental knowledge of taste perception, the article will be a good source of information on temperature-taste effects and introduces readers to one of the mechanisms underlying taste perception.

**Abstract:**
The concept of the tourism experience has become a focal point for current tourism research and management. While academic studies are increasingly examining tourism as a function of memorable experiences (ME), more research must be done to uncover the essence of what exactly makes certain experiences special, spectacular, and fittingly, memorable. This study sought to explore the essence of MEs based on research from the field of psychology, with a view to understanding the cognitive processes that impede individuals from paying attention to their experiences, as well as the conceptual processes of memory formation and retention. In-depth interviews revealed four key dimensions of MEs: affect, expectations, consequentiality and recollection. Finally, we propose several avenues for future research on MEs.

In this paper Tung and Ritchie contribute to the study on memorable tourism experiences. Four key dimensions which have the most influence on experiences to be memorable are the followings: affect, expectations, consequentiality, and recollection. As taste is a vital part of food experience, understanding of how people gain memorable tourism experience and factors which have influence the experience would be useful for the research. Even though the article does not relate to the research topic directly, the article may be beneficial supplementary information for future research on taste as an event design tool to create memorable event experiences.

**Abstract:**

**Purpose** – Experiential marketing is arguably marketing’s most contemporary orientation, but as with many marketing innovations it has been largely overlooked by those involved in tourism and hospitality marketing and promotion. Whilst in many industries companies have moved away from traditional features and benefits approaches, to putting experiential marketing centre-stage, marketing in the tourism and hospitality sectors does not appear to have explicitly engaged the theoretical issues involved. This raises the question what, if anything, does experiential marketing have to offer marketers in the disciplines of tourism and hospitality? In this paper, I will seek to introduce the experiential marketing debate and demonstrate how the questions raised by the concept are critical to an understanding of marketing theory and research within the tourism and hospitality sectors.

**Design/methodology/approach** – Following the authors previous publications which sought to investigate alternative paradigms for studying hospitality consumers, this research attempts to consider the practical applications of one such model.

**Findings** – The tourism and hospitality sectors cannot be seen to be immune to fundamental changes in the orientation of marketing. Innovative experience design will become an increasingly important component of tourism and hospitality firms core capabilities. Those who go beyond service excellence, and market experientially will lead the creation of value in the sector.

**Originality/value** – Provides a framework as to how organisations might usefully implement an experiential marketing strategy.

Williams investigates importance of innovative experience design in tourism and hospitality industry by looking at current experiential marketing practices in the industries. The article is accessible and fascinating. Taste is indeed one of the important factors in consumer experience, especially in food related settings. Several examples of the best practices demonstrated the successful implementation of the five senses in creative experience design and how those senses have been applied to enhance people’s experience and make the experience memorable. A framework of experiential design provided in the publication may be useful supplementary material for the research in terms of experience enhancement in event design.
4. REFERENCES


