

Molecular gastronomy: understanding the concept



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1) Research Problem What is Molecular Gastronomy? Best described by Hervé This, as the understanding of food apart from the chemistry and physics behind the preparations of any dish for example, why a mayonnaise becomes firm or why a soufflé swells. So, how can chemistry and physics lead to a new way of cooking? One example quoted by Herve is the egg. If we heat an egg, water evaporates, the proteins denature and polymerize to enclose water, and the end result is a cooked egg.

Alternatively, alcohol can do the same trick because it can denature proteins; thus the same result would be achieved by adding liquor to a raw egg. Similarly, the scientifically proven way to obtain an airy soufflé is to heat it from below, so the evaporating water pushes the dough upwards. This is simple physics but it can help us to make better food. (T. Hervé, 1999). The concept was introduced by Hervé This (French Chemist) and Nicholas Kurti (Hungarian Physicist) in 1988.

Henceforth, the new culinary trend begins and has been touted as the new development on haute cuisine (T. Hervé, 1999). The world top 3 chef such as Ferran Adria (El Bulli, in Spain), Heston Blumenthal (Fat Ducks, in IJK) and Pierre Gagnaire (Paris, France) (Restaurant, 2006) has been inspired by the molecular gastronomy. This entire chef has impressed their guest by creating a magnificent gourmet such as fake caviar made from sodium alginate and calcium, burning sherbet, pasta made from vegetable and instant ice cream that are made by adding liquid nitrogen to the recipe.

The research topic for this dissertation is Molecular Gastronomy: Understanding The Concept. The purpose of this research is to understand

the concept and defining it more clearly so that it can be globally accepted especially in Malaysia. It does not concern on the food fashion or how to prepare luxury food but merely to educate consumer on how the scientific discipline of molecular gastronomy could change their eating habits. But with such pompous name, it has created unwelcome effects from the consumer.

At the same time Molecular Gastronomy has also provided a new generation of chefs with impetus and inspiration. Chefs use foods and techniques that produce extracts, dialysates and concentrates to create delicate and intriguing meals. It's like artists mix paint and color on a canvas to create delicate and intriguing textures and mages. (Dr. Slavin, 1997) 2) Research Objective and Question 1. To understand the concept of molecular gastronomy; 2.

To create awareness and educate the consumer on the scientific discipline of molecular gastronomy in changing their eating habits; 3. To identify consumer fear and erase the negative perceptions on molecular gastronomy; and 4. To create a challenge amongst chefs to create a multicourse meal that present a progression of complementary flavors without repetition. The research questions are equally important in order to know what type of information is required to redress the problem.

The questions for this dissertation are as follows : 1. What is molecular Gastronomy? 2. What is the consumer acceptance level towards molecular gastronomy? 3) Conceptual Frame Work and Parent Theory The fact that while food can provide gustatory gratification and a welcome sense of fullness and satisfaction. It can also produce sensations and reactions

ranging from mildly unpleasant to severely distressing. The anxieties associated with these negative possibilities are largely self evident.

For example, there is a fear of encountering unpalatable flavors or textures as well as the fear of experiencing digestive distress, in the form of sensations of 'bloating' or nausea. Concerns about such unwelcome effects are likely to be particularly prominent when the individual encounters a novel food item and such concerns represent an important component of neophobia. Indeed disgust when encountering novel food items may, in certain hazards, even though its origin may be largely cultural (Fisher, 1990) The parent theory for this dissertation will be the Omnivore Paradox theory.

As far as the human omnivore is concerned, they will experience the opposing pulls of eophilia (the inclination to sample novel food items) and neophobia (caution when confronted with novel items) and normally they will find ways of coping with this paradoxical juxtaposition of attraction and repulsion (Beardsworth and Keil, 1992). This will be illustrated in the tables of the omnivore paradox shown below: source: Fischler (1990: 64) Michaut (2004)

4) Research instrument For the purpose of this research, the qualitative research tools will be used focusing on a secondary data to support my proposal and answering the research questions.

This data will be collected from external sources such as published Journals, books, 5) Bibliography/references Books: 1) Alan Beardsworth and Teresa Keil: Sociology on the menu: an invitation to the study of food and society. 3rd edition 2004 Routledge 2) Lynn Frewer and Hans Van Trijp: Understanding the consumer of food product. 1st edition 2007 Woodhead

publishing Journals: 1) Paul Rozin, 2002: Human food intake and choices: Biological, physiological cultural perspective 2) Paul Rozin, 1999: Food is fundamental, frightening and far reaching and