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What is 'Real Food'?

A Discourse Analysis of Food Education in Taiwan

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Abstract

This research adopts Discourse Analysis as its method to analyze the growing discussions of food education after a series of food safety scandals in Taiwan since 2010. By examining the proposed food education bills, local projects, textbooks, lesson plans and news articles, this research aims to explain how food education as a discourse problematizes food in its own way and identify the subject position and knowledge different from nutrition education, thereby contributing to the field of sociology of food.

In the discussions of real food following the food safety scandals, the taste of food is deemed the key to the distinction between real and fake. The food education discourse advocates the need for the public to know the 'original taste' of food that is deemed gradually replaced by its simulation, the artificial flavorings and additives, which are deemed the cause of the numbed tongues incapable of appreciating real food. The training of the sense of taste is therefore promoted. Fake food is perceived as an impersonal mechanical reproduction of real food, the original handcrafted work of art tightly connected with the producer's personal life. With their more intimate relations with food and everyday life, the farmer and the traditional market vendor who were once deemed uneducated are now legitimized to share their knowledge of food, and the farm and marketplace are used as the classroom outside school.

Comparatively, the dominant discourse of nutrition education considers food as exchangeable in the standardized format of the nutrient composition. It evaluates the cost-benefit of food in the language of bookkeeping and accounting, establishing a strict training and certification system to authorize only qualified experts to provide objective dietary advice. The above two heterogeneous discourses compose Taiwan's landscape of food education in a broader sense.

Lay Summary

This research studies the development of food education in Taiwan as a response to several food safety scandals in the country. It looks at different sources such as bills, lesson plans, and news articles to explain how food education facilitates a different approach to food knowledge that focuses on personal experience and the sense of taste, which is deemed the key to the distinction between real and fake food.

Besides, the idea that fake food is a simulation of the original real food leads to the emphasis on personal connections with food, which then qualifies the farmer and the traditional market vendor who were once deemed uneducated to teach the public about food and share their personal experiences. Nutrition education, on the other hand, focuses on the “objective and measurable” knowledge that can only be provided by certified experts. These two different approaches to food compose Taiwan’s food education policy.

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Chapter 1 Introduction

Food education has been part of Western schooling since the early twentieth century; in the last decade, the efforts to teach the public about food have intensified and the food pedagogical sites proliferated (Flowers and Swan, 2012; 2019). Food has become the object of intensified pedagogical activity across a range of domains (Rich, 2011). This proliferation of teaching about food and the diversification of food educational processes are not exclusive to the West. Japan, for instance, enacted the Basic Law on Food Education (食育基本法) in 2005 to address various concerns (Naikakufu, 2005, p.1) including the lack of proper concern for food, the increase in irregular and nutritionally unbalanced meals, the rise in obesity and lifestyle-related diseases, the outbreak of a series of incidents related to food safety, the overdependence on food from abroad, and the loss of traditional food culture in a globalization movement.

Since 2010, there had been a series of major food safety scandals in Taiwan. In 2011, a laboratory staff member from the Taiwan Food and Drug Administration (TFDA) incidentally found DEHP (Di-(2-ethylhexyl)phthalate) in a probiotic powder and subsequently in many other food items. The culprit plasticizer DEHP is an industrial chemical used mainly for making polyvinyl chloride soft and flexible. After investigations, more foods were found to contain DEHP as well as other plasticizers, including di-isononyl phthalate (DINP) and di-butyl phthalate (DBP). As Jin-Ying Lu notes, the TFDA:

discovered that some food-additive distributors had illegally added the banned industrial plasticizer to a stabilizing emulsifier, as a cheap substitute for palmitic oil...The resulting product, a clouding agent, was then used by many well-known food manufacturers in fruit-flavored juices, jams and jellies... tea drinks, and other beverages. (Lu, 2011, p.553).

Ultimately, this food safety scandal involved 426 food producers, and 965 food products were removed from a huge number of shops in Taiwan, almost 40,000 (TFSS, 2016; Lu, 2011, p.553).

The health authorities investigated, and in 2013 stated that the problematic substance was maleic anhydride, an industrial material not approved for food use, more standardly being employed to make pesticides and polyester resin. Six producers were tracked down as having made the problematic modified starch, with around 19.11 million kilograms of this substance having been sold to restaurants and food factories, its “popularity” being due to its ability to enhance food texture. A wide range of food items contained this problematic, potentially toxic, substance, including thick noodles, oden noodles, coarse flour, Taiwanese meatballs, whey powder, tempura powder, sweet potato powder, sticky rice cakes, tofu pudding and crystal dumplings. According to the TFDA, a large number of products with unapproved ingredients were confiscated – 312 tons. The outcome of legal cases was that 26 retailers and 9 factories were prosecuted. Around 13 food brands were affected (TFSS, 2016).

In 2014, 645 tons of adulterated cooking oil, often referred to as "gutter oil," were found produced and distributed to more than 1,200 restaurants, schools and food processors in Taiwan, and more than 1,300 food products were tainted by the oil, including instant noodles, snacks, cakes, dumplings, bread, canned pork, meat paste and glutinous rice, and hundreds of tons of products were removed from shelves. The Kaohsiung-based company Chang Guann purchased waste oil collected from restaurant fryers, sewer drains, grease traps, and slaughterhouse waste, filtered, boiled, refined, and mixed it with lard to make its Chuan Tung cooking oil as a cheaper alternative to normal cooking oil (TFSS, 2016).

TFSS (2016) concludes that these three food safety scandals all resulted from the contamination of illegal additives in the food materials, affecting the midstream and downstream of the food production chain, and it is getting more difficult for the public to know what they consume on a daily basis. It is therefore suggested that the authorities set the standards of identity for food to define each food product by the ingredients, their proportions, and any requirements of manufacturing for it to be marketed under a certain name and ensure the food label accurately reflects its content. TFSS (2016) claims that without the standards of identity for food and appropriate testing methods, “it is not possible to find out which food product is fake

and which is real". Though the proposed measures were not adopted, the idea that the key to addressing food safety issues is the distinction between real and fake foods makes its way into the discourse of food education and becomes a heated topic in newspapers, magazine articles, school lesson plans, and even Legislative committee sessions afterward.

With repeatedly occurring food safety crises in Taiwan, some experts warned that Taiwan's food problem cannot be rooted out unless people start to learn about the correct knowledge about food, calling for food education to be implemented to enhance people's understanding of what they eat and reestablish the relationship between people and environment. Civil groups might be the first to respond to the call for promoting food education to address food safety issues and other challenges. In 2011, the well-known environmental group Homemakers United Foundation started its "Green Food Education" project, which is the first food education program in Taiwan, addressing the topics covering genetically modified food, the reduction of the use of pesticides, and the awareness of food literacy at home and school. In 2014, HUF, Tsinghua University, and the Association for the Promotion of Community Universities co-established the Agri-food Education Legislation Promotion League to propose a draft to the Legislative Yuan, calling for cooperation between governments, schools, and communities to bring real food back to our land. Several other groups were later formed to join the effort of promoting food education. The Taiwan Association for Food Education, for instance, was established in 2016 and aims to promote local, seasonal produce and provide food education for children.

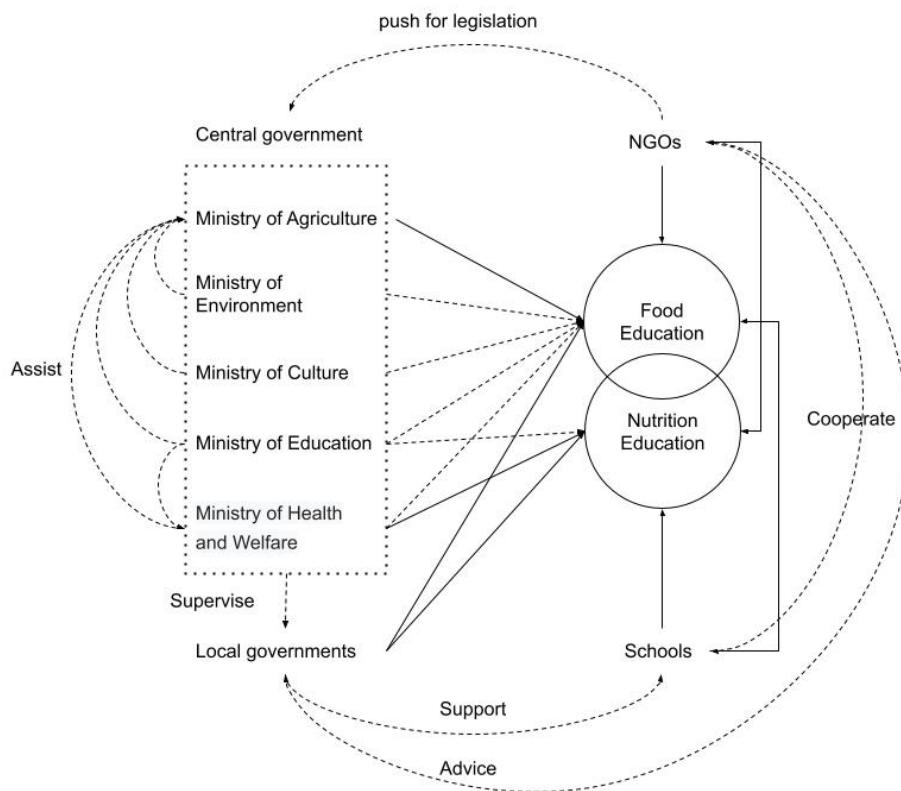
Local governments in Taiwan have also been engaging in developing their food education projects. From 2012 to 2014, half of Taiwan's counties and cities have already started their food education projects (Yung, 2018, p.27). In 2013, the Taipei City Government published the Agri-Food Education Handbook (Chang, 2013). Since 2013, the Department of Economic Development (DEDT) of the Taipei City Government has been establishing a platform for food education, training seeded teachers, editing the Taipei Agri-food Education Handbook, and supporting the cooperation between organic farms and local elementary schools to develop their food education classes. After the proposal of garden city policy in 2014, the Taipei

City Community Agriculture Promotion Center was established in 2015, which encourages civic groups to adopt agricultural space to cultivate an edible landscape for environment protection and food education. So far, 19 plots of farmland are registered and opened to the public for adoption, and 270 small campus gardens, civic farms and gardens, and public-building rooftop gardens in Taipei (Taipei City Government, 2016). The Kaohsiung Education Bureau also published 3 volumes of food education textbooks which introduce 12 local foods in detail. The Tainan City Government announced that “food education” would be added to the five traditional elements of a well-rounded education – moral, intellectual, physical, social and aesthetic - and become part of the curriculum for all schools; it then published 5 textbooks themed with Tainan’s local foods in 2017. In 2016, to encourage the diversity and sustainability of the food environment, promote local production of food, and bring green into the city, Taichung City Government launched its Urban Food Forest project, selecting suitable public land in the city for citizens to farm fruits and vegetables (Taichung Travel Net, 2016).

The importance of developing a comprehensive plan to promote food education has also been recognized on the central level. Following the example of Japan’s Basic Law on Shokuiku (Food Education) adopted in 2005, the Legislative Yuan has been pushing for a Food Education Basic Law. In 2012, the Legislative Yuan held a public hearing to discuss the draft of the Food Education Basic Law, aiming to incorporate resources and provide an overall structure. Though the bill is still in the drafting stage, two local governments have legislated their food education acts. In 2014, the Ilan government drafted “Ilan Self-Government Ordinances of Healthy Diet”, requiring every elementary and junior high school in Ilan to establish a school farm and include food education lessons in the curriculum. In 2018, the Taichung City Government passed “Taichung Self-Government Ordinances of Agri-food Education”, aiming to integrate agriculture into the curriculum and promote food safety education by experiencing activities and participation. The bill highlights the importance of eating local and seasonal and understanding the stories behind food. Besides, the authorities have been developing teaching materials and plans for schools’ reference. In 2012, the Council of Agriculture conducted the first research on the design of agri-food education, and one year later, the Agriculture and Food Agency (AFA), Council of Agriculture launched the Organic Agri-food Education

program, conveying the idea of the organic agri-food education to junior high school and elementary school teachers. To encourage teachers to promote agri-food education, AFA held the first lesson plan contest and selected 57 from the entries to share with the teachers (AFA, 2017). Since then, several contests have been held and more lesson plans shared by the AFA and other authorities.

Chart 1: the governing structure of food education in Taiwan



There is no denying that food education projects may share similar interests in the promotion of public health and take similar measures to address dietary issues, but the gaps between food education and nutrition education should not be dismissed. Based on the food knowledge in lesson plans, food education, as promoted by local governments and civic groups, is distinct from the earlier nutrition education widely taught in Taiwan. In the 1970s, Taiwanese public health policymakers made nutrition education a key development goal and introduced nutrition education into people's lives through measures such as promoting nutritiously balanced school lunch

programs, establishing a nutritionist system, conducting nationwide investigation via Nutrition and Health Survey in Taiwan (NAHSIT), and publishing the government-sponsored Dietary Guideline. Such measures were originally put in place to counteract social problems of that time, including the increased prevalence of chronic disease in modern society seen in the earlier days. To this effect, the public needed to be taught about the nutrient contents of different foods, nutrition demands based on individual needs, recommended dietary habits, and the risk of potential diseases if neglecting said recommendations. By contrast, the aforementioned food education focuses on topics such as increasing food experience and distinguishing real food from fake ones. While both policies aim at improving public health and eating behavior, they exhibit clear distinctions in terms of knowledge that gets circulated. In other words, the two speak of and about different objects – one discusses health-promoting nutritious foods and disease-causing junk foods while the other debates safe-to-consume real foods against fake ones containing unsafe ingredients. One may argue that, in practice, there is much overlap between objects referenced by real/nutritious or fake/junk foods; however, this does not take away the discrepancies in reasoning, criteria, theories, or notions that each program adopts when referencing food as its study object. The fact that potato chips – junk food and a fake food – are regulated or blacklisted on dietary guidelines is not proof of one only truth at work. It is not evidence that some ultimate truth about health and food has prevailed to ensure that all different dietary knowledge criteria reach the same conclusion; instead, it should be interpreted as a coincidental overlap between the effects of two rationalities.

Based on these food education programs and policies, it is reasonable to view food education (or at least food education as is significantly referenced in related policies and programs) and nutrition education as two sets of knowledge networks that stand independently albeit being closely related. This study aims to analyze their characteristics in terms of network rationality and further explore how each network realizes different potential approaches to food knowledge (or, in other words, constructing food as its study object).

1.1 Policy, Subject, Knowledge, and Theories

After a preliminary examination of Taiwan's food education policies (in a broader sense), I determined the general scope of my research – comparing nutrition education-related government policies and measures against the food education outlined by Taiwan's Food Education Basic Law and related promotion programs, which will be applied to depict the overall development of food education in Taiwan. The question that follows is – on what grounds should such a comparison be based on? In what terms do I define the two objects for comparison purposes?

The most straightforward option is to examine policies and laws relevant to each side and compare what factored in the government's policymaking and goal-setting process. This approach views nutrition and food education as instruments and measures of interference adopted by the government to achieve specific public health goals or other policies. Subsequently, when studying their formulation, key questions may include "By whom and for what purpose was a policy being proposed or food-related knowledge being promoted?" My point is that the formulation of such policies shouldn't be attributed to a specific individual's or group's wisdom, foresight, or will, or merely as a natural response to newly emerging stimuli within a society. Instead, it should be accredited as the result of a network born out of more complex, more diversified historical and social factors. If we limit the scope of analysis to only objects and practitioners pertaining to a policy's development process, we may fail to consider the fundamental principles and contexts in the development of food education which are inherent and not determined by any individual.

Given the above, perhaps we could instead view food education as a study subject or a systematic exploration and accumulation of knowledge and turn to the accumulated epistemic achievements in food education itself as the object of analysis. From there, we can, from the perspective of the history of science, evaluate their maturity and examine how different theories hitherto have evolved or died out. However, this still poses a problem – although food education has been introduced to curricula across different school levels, it doesn't necessarily render food education a comprehensive, clearly defined stand-alone subject. On the contrary, what I see are loosely wrapped, sporadic fragmented statements clustered around

haphazard events, becoming an accessible source where we find contents of nutrition education as well as knowledge about historical events, local culture, or other fields of study. This is not to say that food education would lack a rationality framework that other study subjects have. What I am suggesting is that we shouldn't forcefully deduce a multitude of rationalities to a single source. The formation of food education shouldn't be deduced as the result of a specific factor's rational development but as an unstable network construed by a multitude of factors coming together sporadically or arbitrarily – and its contents reflect such quality.

Furthermore, food as an object of knowledge isn't always discussed in objective, "natural science—like" terms. More often than not, what we see or hear are slogans, suggestions, advice, propaganda, thoughts, or remarks that are too fragmented to systemize and never included in textbooks. Nonetheless, in terms of this study's research aim, these sporadic fragments are not deemed less valuable than dietary guidelines or health education; rather, they constitute different areas and connections within food education, and studying food education by treating it as a subject might compromise these unsystematized food-related knowledge fragments.

Then, perhaps we can define food education as a kind of knowledge. This corresponds to the research aim mentioned earlier in this paper, that is, how to approach food as a study object. Yet the term "knowledge" is somewhat misleading; it might misguide readers to believe that what this paper attempts to analyze is some abstract or on-paper conceptual existence, theory, or linguistic description applied to food, a material object. However, what "approaching food as a study object" refers to are not only concepts, metaphors, theories, or common knowledge but also material conditions and practices that these concepts or theories are dependent on, observations, experiments, and operating procedures done to obtain knowledge, or infrastructure established by applying such knowledge. As Defert (2013, p.266) argues, "There is no knowledge without a regulated discursive practice." We can only employ concrete, linguistic, or actinic approaches to understand food, and these physical observation, experiment, teaching, or description of devices, technologies, procedures, and systems determine food's epistemological scope and is therefore included in this paper's analysis.

In sum, food education is more than mere policies – it is the totality of specific

resources available to policymakers. Food education is more than a subject – it is the science or conglomerate of disorderly, unsystematized knowledge lying behind the term “subject.” Food education is more than just knowledge – it is the summation of all kinds of physical conditions and practices that food relies on to qualify as a study object. If this is the case, if all the above fail to accurately define food education, then what unit of analysis should we apply when researching food education? Here, in comparison to the above options, Michel Foucault’s theory and the arguments and concepts he adopts better addresses the premise of my research.

Since Foucault never offered a clear definition for discourse, after incorporating reasonings presented across many of his different works, I use the term “discourse” to denote a series of statements, practices, and procedures that are framed by specific issues and rationality. What defines a discourse isn’t a topic or its contents; rather, it is what lies beneath said topic or contents – the background conditions that give rise to the problem and the rationality framework that one must rely on when addressing the problem. This is because, even when operating under the same topic, there exist variegated formal and informal problematization processes; some rationalities that are fragmented, lack an established term and label, or fail to meet scientific standards might take partial effect under certain conditions. I attempt to uncover the concepts, reasoning, and rationality forms that are applied in instances where food is being understood. Therefore, while I also touch on discourses in nutrition or food education, what nutrition discourse denotes isn’t the limitless totality of literature that pertains to the topic “nutrition;” rather, it is a very confined foundation construed by specific piled up, intertwined rules, conditions, conceptual framework and metaphors. Literature is merely a partial, concrete product of such a discursive foundation.

To borrow a metaphor using geographical terms, the landform that is food education policies, programs, and reports is the result of built-up pressure from specific events, such as food safety scandals pushing against plates of preexisting knowledge, subsequently giving rise to new geographic plots. During the course, the structure of old continental plates (construed mainly of nutrition education) may perhaps disappear into food education or be pushed out of the island that is food education.

This is expository orogeny – a new plate of “room for discussion,” fueled by food safety outbreaks, converges and collides with several food knowledge plates (or possibly not directly related to food), causing tectonic uplift. Based on this, a knowledge ecological system distinct from nutrition begins to take place. Meanwhile, in terms of existing resources that have been pushed to the surface, there are now species never found on the old “nutritional science” continent that now depend on these resources to reproduce. Other species may have successfully transplanted or migrated to this new “food education” island or stayed after adapting to the new environment or perished due to incompatibility with yet other species. Various food-related topics and subjects are the results of this process of problematization (or, rather, orogeny), in which a few limited questions push against different knowledge plates, or some other elements jointly affect a certain area of knowledge landform, to gradually and eventually sediment at the base that becomes a solid subject foundation.

This study aims to explore the field resulting from this orogeny from food discourse – how do we interpret nutrition education and food education policies as discursive plates as well as the formation of the corresponding ecology? What is the nature of the relationship between nutrition and food education? We can interpret food education as a smaller land mass that has broken away but is still attached to the nutrition education continent, or perhaps as a semi-independent land that drifted away from another location and collided and haphazardly connected to the open waters of nutrition education, or even as a completely stand-alone, newly formed island. It is not this study’s intention to draw out a distribution map for food education knowledge; instead, what it hopes to achieve is to collect pieces of above-ground information significant enough to denote plate movement as clues to put together how knowledge plates push and problematize to form a food education space. By analyzing data on food education, I hope to define its formulation, basis of development, and relative characteristics as well as depict any detectable source of truth species that rely on such truth-defining resources and their peculiar ecological relationship. By “ecological relationship” I refer to the relationship between the subject and object in this discourse – “the nature of and truth about food” as discursive object are minerals and vegetation shaped by orogeny while “those qualified to speak of or witness the truth about food” are species that rely on such

resources to grow. Take nutrition discourse as an example. Nutrition only replaced food to become an object of discourse for observation, reasoning, and management after specific problematization issues took place (such as the government's need to improve population quality during World War II). Manipulating a discursive object such as nutritional science requires approval and recognition by nutritionists and medical professionals, and the problematization of employing nutrition as a means to understand food gave way to nutrition rising as an object of discourse and nutritionists as subjects of such discourse. By analyzing literature on food education, I shall attempt to depict any other ecological relationship possible.

In sum, my comparison of nutrition against food education shall focus on the following aspects – the background to food problematization, defining the discursive object, and formulation of the discursive subject. First, I will examine how food became a matter of investigation for nutrition and food education. What particular incident transpired or under what conditions did food stand out from its day-to-day never-mind background to become an object we see and speak about, a problem that awaits resolving? The “food problematization” incident determined how we learn about, talk about, and manipulate food. Before we had nutritional science, we might have been able to compare which food better appeased hunger or discuss taste in simpler terms; however, it was impossible to analyze food based on functionality and further design dietary contents based on individual “needs.” Approaching food with nutritional units in mind only appeared out of a very specific historical context, and food education similarly has its context for problematization. Following comes defining the object of discourse. Unlike taking food as the object that satisfies physiological needs, taking food as the object of knowledge requires different observational techniques, practice, statements, concepts, and metaphors for it to take shape, and these sporadic statements and metaphors are spliced into supporting frames to pin down the object that is to be studied. Take nutrition as an example. In contrast to food that we can touch and taste, nutrition is not something we can comprehend empirically – it requires biotechnology to first measure and mark and then field experts to guide us on taking it as an object of daily dietary management. Lastly, I will elaborate on how my discursive subject came to be and explain the object-subject relationship. To boil it down – who is qualified to speak the truth about food, and what are the conditions or criteria it is based on?

Per my definition, food education discourse is a collective three-dimensional network constructed by a plurality of problematization networks that diverge in scale, size, and density, with the core of each discourse being that discourse's problematized object. The network forms holes that allow subjects of specific forms to enter, and what shapes the discursive object (i.e., foods problematized according to certain reasoning, theories, rules, and criteria) is the peripheral, intertwining network of relations. It is possible, on different levels and aspects, for different discourses to be connected (or, in some circumstances, not relevant at all). Thus, theoretically, there is no clear margin between different discourses. Rather, we can only ascertain that, for a specific problematized object, a peripheral network of relations with higher density may be reasonably deemed as a relatively independent discourse; yet at the same time, individual discourses are defined, supported, or undermined by the relation of concepts, metaphors, formats, and processes from other discourses of the same or different type. This is why relationships between discourses are also clues to understanding individual discourses. From a discursive point of view, this is only what makes it possible to discuss on the same level nutrition, which has become common sense, and "food education," which is still vague and ambiguous. Here we have a stabilized scope of problematization and another still-developing discursive plate – the two exhibit overlapping, intertwining gray zones as well as areas with clear distinction, and not two policy instruments of dissimilar effects or a scientific or non-scientific subject.

There have been a significant number of studies on food education and nutrition education. After decades of nutrition education campaigns, it has become the dominant way of knowing food; people are now encouraged to think about foods in terms of their nutrient composition but not in the cultural or historical context (Scrinis, 2008). Claiming to improve public health, governments around the world have heavily invested in the promotion of nutrition education and implemented various measures designed to secure the accessibility of nutrition information and to pattern dietary behaviors, such as the labeling of nutrition facts, the publication of dietary guidelines, nutrition and health survey, and the policies that require restaurants and markets to provide calorie counts (Mudry, 2009).

Such dominance by nutritional science triggered many scholars to reflect and suggest that nutritional science's decontextualization has resulted in people's fragmented approach to learning about food and loss of connection with food. Scholars advocate for a more diverse approach to food knowledge, which has put food education on the map for researchers. Compared to nutritional science's singularity and dogmatism, food education is viewed as a diverse, rich, and liberal epistemological approach against nutritional science (Mayes and Thompson, 2015; Hayes-Conroy and Hayes-Conroy, 2013; Welch, McMahon and Wright, 2012; Mudry, 2009; Scrinis, 2008). While introducing the concept of food pedagogies, Flowers and Swan (2019) illustrate the wide range of food pedagogies across different sites with various educational aims, content, and processes, stating that supermarkets' attempt to instill certain food lifestyles, label reading, TV food programmes, school edicts, and advertising are all parts of food pedagogies (Flowers and Swan, 2019, p.2), covering theoretical knowledges, culinary skills, taste formations, knowledge of cuisines, ingredients, producers, suppliers, food history and local traditions. Mudry (2009) also suggests that other discourses of food could form the foundation for alternative epistemologies of the quantification of food as calories and nutrients and provide the possibility of grounding qualitative knowledge of food in a discourse of taste from the perspectives of history, geography, and personal experience.

As nutrition science becomes a normal and unquestionable part of our lives, some researchers start to question nutrition's fundamental claims to neutrality and objectivity and rethink the relationship people have with food that is problematized by nutrition. For instance, Mudry (2009) examines the construction of the discourse of nutrition in America, pointing out that it provides a discursive technique to perceive food through measurements of the constituent ingredients, and the proliferation of this discourse of quantification has been widely spread in the modern societies. Coveney (2006) applies Foucault's method to analyze how the technologies and strategies designed to manage populations lead to the calculated, scientific, and rational notion of food in the modern world. He argues that as nutrition discourse is circulated, produced and reproduced, the modern subjects of food choice and self-regulation are produced with it. Besides Mudry (2009) and Coveney (2006), other studies also provide valuable insights into the formation of nutrition discourse, even though they might not adopt Foucault's method or use the concept of discourse for

their analyses. For instance, Scrinis (2013) reviews the history of nutrition in the United States, challenges its dominant position as the only right way of knowing food, and criticizes the standardization, reductionism, decontextualization and hierarchy in nutrition science. He argues that nutritionism has been the dominant paradigm framing dietary discourses since the nineteenth century, questioning how the scientific knowledge of nutrients and foods is generated, interpreted, and translated into regulations such as dietary guidelines and food labeling, or utilized by food companies to sell the products.

Generally speaking, these studies more or less take food education discourse to be anti-nutrition or at least non-nutritional. There is another angle of analysis that takes the opposite view – some scholars do not consider food education to be anti-nutrition but rather as an extension of nutrition; in other words, they deem them to be the same ideology's representations and sophistication of governance. For instance, Begley (2016, p.188) argues that “food literacy programmes appear to have evolved as experiential practice forms of nutrition education that move away from reliance on nutrition knowledge transmission. Part of the increasing interest in food literacy programmes is their evolution as a form of nutrition education as driven by a need to consider specific target groups.” Wright and Harwood (2009; 2014) examine school curricula and public health campaigns, critiquing the educational initiatives' attempt to govern the bodies and lives of children and parents. Such studies provide a critical perspective to rethink food education and other health-promoting practices, but could also cause a false impression that nutrition education and food education are simply different approaches that belong to the same rationality of public health, without recognizing the varieties and pluralities in the domain of knowledge and arena of practice that construct the truth about food, diseases, and health.

What we need to ask is this – what is this food education debated by scholars? While the two theories hold completely different grounds, both their analyses and reasoning are based on nutritional studies. Food education itself was never examined comprehensively but only mentioned in terms of “outside nutrition” or “extension of nutrition.” I believe that such a holistic, indiscriminating view hinders a deeper analysis. Although the nutrition/food education relation is a key point in understanding food education in the broader sense, we should first ascertain the

plurality and differences for food knowledge outside of nutrition before we can identify the various possible relationships between food education discourse and nutrition. These may include partial overlap, parallel, connection, and even fusion – not just a simplified dichotomy of complete opposite or homogeneity. Their distinction shouldn't be based on the abstract level, instead, they can only discuss through actual historical context and the problematization process. This makes up for the deficiency in food education discourse.

1.2 Research Scope and Contributions

This study attempts to use Foucaultian discourse analysis to describe the formation of food education discourse and inquire into the problematization of food, which means instead of asking how to better educate the public about food and finding the “correct” answer, this study questions the question itself: how is it entailed? What knowledges are produced and taught? What procedures are used? To map the possible connections formed within the discourse of food education, this study examines the bills of Food Education Basic Law, relevant government documents, local government's policies and projects, food education lesson plans and textbooks, and food or education-themed media articles after 2010, which is the time a series of food safety scandals triggered heated discussions about the necessity of food education. In general, I attempt to examine the bills and government documents for the leads of discursive connections between the object, subject, and the procedures and practices, scrutinize lesson plans to describe the practices utilized for identifying real or fake food, and review media articles for the broader context where the problematization of food took place. It should be noted that even though this study chooses food education policies and projects as the starting point, the intention is not to analyze the power “owned” by the government or certain individuals or groups that allows them to arbitrarily define what to be learned about food, but to use the policies as a site with potentially the most intensive discursive connections, so it would be easier to trace these connections and identify the various questions asked, knowledges produced, and the subjects allowed to speak the truth.

While selecting the lesson plans for analysis, I focus on those involving the discussion of real or fake food and exclude the other topics, such as local food

consumption to reduce the environmental impact or the reservation of the declining traditional culinary culture. It does not mean that the other food-related issues are less important, but as discussed earlier, Taiwan's food education discourse only started to take shape after the food safety scandals; the environmental issues and the loss of culinary traditions have been discussed for decades, yet no such concept as food education had ever been developed into concrete policies to address them. It was only after the outbreak of food safety scandals with the following discussion of real food did food education emerge and lead to various bill proposals, projects, and syllabuses around the notion of real/fake food distinction in less than one decade. Therefore, it seems more reasonable to focus on the problematization and truth procedures of real food to understand the obscure connection between food safety and food education. By examining the connections between the notion of real food and food education projects, this research aims to explain how food education could address food safety issues and what knowledge is produced and circulated.

Though nutrition discourse is also to be examined, this study focuses more on the formation of food education discourse and only selectively analyzes nutrition policies, regulations, and guidelines for comparison with food education, as plenty of studies have explored the various aspects of nutrition discourse, which provide valuable insights that could help us understand the discursive formation of nutrition education in Taiwan. The data collected for my analysis includes major local nutrition laws, such as the Dietitians Act and the bills of the National Nutrition Act, dietary guidelines, health education textbooks, and publications from the Taiwan Dietitian Association.

By analyzing the discourses of food education and nutrition education in Taiwan, this study aims to contribute first to the understanding of the notion of "real food," which seems to be at the core of food education discourse. There has been abundant literature on the notion of real food, but most of the studies consider it as an abstract concept and study it on the semantic or symbolic level. Some studies discuss the meanings of real/authentic and indicate the synonyms, listing a range of meanings that could be evoked by the concept of authentic food: original, genuine, real, true, natural, organic, local, rooted, distinctive (Pratt, 2007); some attempt to understand how it is interpreted by interviewing consumers and asking what kind of food is

perceived as authentic and real (Groves, 2001; Lyons, Lockie, and Lawrence, 2001; Autio et. al., 2013); and some others explore the symbolic connections that people make with food, suggesting that there is a desire for authenticity and the real, which derives from the opposition to the modern industrialized food, romanticizes the past, and leads to a nostalgia for real people and real values in the good old time (Featherstone, 1994).

These approaches might help define the concept and locate its meaning but do not address the problematization of real food and the legitimization of the knowledge. Besides, though interpreting the search for real food as a symbolic opposition to industrialization explains the resistance to artificial, industrial, and “fake” food that is common in food education discourse, this theory provides no further explanation of how the real is identified in practice as if there are natural connections between “real” and certain qualities that requires no further examination. Different from the semantic approach, Foucaultian discourse analysis does not look for real food’s meanings, personal interpretations, or symbolic values, but the procedures that are used to identify the realness, the conditions that allow certain subjects to tell the truth, and the spaces that are activated for the production and circulation of knowledge. In short, the identification of real should not be seen as something abstract and decontextualized, but physical, practical, in specific contexts, and for specific functions. This study therefore could fill the gap by examining the practices to distinguish the real from fake and explain how the notion of real food is associated with certain speaking subjects and truth-telling spaces.

Second, the analysis of nutrition discourse in Taiwan provides a more comprehensive view of how the discursive object, subject, and context where the problematization of food as a combination of nutrients connects with each other. Though the studies of nutrition have already accumulated abundant research results, current studies are mostly based in the United States, so this selective review of Taiwan’s nutrition policies and regulations could provide an illustration or a confirmation of their theories. As Pritchard and Chan (2016) point out, there has been a variety of local movements in Asia that adapt the discourses and practices from the West for local contexts and attempt to generate new discursive fields about food. This study provides an example of how a new discursive field of food education

is created in the local context.

Lastly, this study contributes to the field of food sociology. Since the early 1980s and 1990s, there has been a significant surge in the literature of food studies, which emerged as a distinct subfield with various issues and approaches to address food as a legitimate subject matter (Germov and Williams, 2017; Murcott, 2017). This field of study concentrates on the “sociocultural, political, economic and philosophical factors that influence our food habits” (Germov and Williams, 2017, p.5) and investigates the dynamics of food production, distribution, and consumption, exploring issues such as food security, food safety, nutrition, public health and the environment and shedding light on the complex ways in which food is intertwined with society. It underscores the idea that what we eat and how we eat it are not just personal choices but are deeply embedded in the social fabric of our lives.

Through the lens of food sociology, we are able to understand how eating patterns or food habits are socially constructed, how specific food knowledge becomes necessary for daily lives, or how our relationship with food is shaped in a given society or culture. This is what this study attempts to do. Food education raises the question of distinguishing between real and fake food, suggests what one needs to know about food, and what kind of relationship with food one should build. By analyzing policy documents, publications, and teaching materials, this study seeks to understand how the knowledge and relationships are discursively constructed around the question posed by food education and illustrate how they are promoted in the problematization of food with the connections and particular circumstances that allow certain measures and policies to be taken into consideration.

1.3 Overview of the Study

Chapter 2 introduces Foucaultian discourse analysis as the theoretical framework for this research, as well as the differences with other approaches of discourse analysis. I then review the existing studies in three areas – nutrition discourse, food education, and the notion of real food – to indicate their contributions and questions that are not fully addressed and explain how this study could fill the gap by analyzing the formation of Taiwan’s food education discourse. Chapter 3 discusses Foucaultian

discourse analysis' focal points, points out the methodology's limitations for lacking clear operating procedures, and indicates problems and handling approaches encountered during data collection. Following the above, the chapter illustrates how this study was designed after referencing other approaches of discourse analysis as well as the study's data collection methodology, types, and scope.

Chapter 4 to Chapter 6 offer an analysis of the collected literature in food education and nutrition discourses, and their contents respond to the three areas mentioned above, that is, the discourse's problematization context and formulation of the subject and the object. Chapter 4 analyzes how real/fake food distinction was problematized after the food safety crisis took place, and became the foundation for developing food education discourse, as well as notions referenced and proposed criteria for determination. Afterward, I employ food education plans as examples to illustrate how the real/fake food distinction is made and any assumptions presumed about the nature of real/fake food. Chapter 5 explains how real/fake food as discursive objects determines the conditions of legitimate discursive position and the relationship between the two. Chapter 6 offers a general depiction of issues proposed by nutrition education policies in terms of historical background, adopted metaphors, referential epistemological systems, and changes in food value evaluation criteria, all to supplement an explanation of how nutrition, as proposed in existing studies, makes it possible to quantify food. Lastly, I compare nutrition and food education discourses in terms of problematization approaches, differences in the subject and object, and proposed interpretation of their partial overlap and integration.

Finally, Chapter 7 summarizes analysis results from Chapters 4 to 6 and further explores the epistemological foundation of food education discourse in Taiwan; in other words, how epistemological legitimacy's judgment criteria differs from (without replacing or overturning) traditional criteria, followed by limitations of this study and potential directions for future endeavors.

Chapter 2 Literature Review

This study attempts to analyze the discursive formations in Taiwan's food education policy. To this end, this chapter examines existing research in the following areas: discourse analysis, critical studies of nutrition, and food education related research.

This chapter first reviews the concepts used in Foucaultian discourse analysis as the theoretical framework of this study and points out the differences between FDA and other discourse analysis approaches, such as the emphasis on the rules, practices, and the rejection of ideology or psychological explanations. The main analytical aspects of FDA are also stated: the problematization of the object, the materiality and rules of practices, and the legitimation of the subject position.

Second, this chapter examines the existing critical studies of nutrition and the discussions of alternative ways of understanding food. With the development of nutrition science, nutrition has gradually become the only correct way to know food. This situation has led many researchers to reflect on the fact that nutrition science has de-contextualized food and disconnected the eater from food, therefore advocating more diversified approaches to food. In contrast to nutrition, food education is seen as a rich field with possibilities for a more comprehensive and fuller view of dietary experiences. However, several problems exist in the studies of food education. Researchers have not clearly defined food education or its relationship with nutrition education and, in some cases, have treated the two as interchangeable or mutually inclusive, such as treating food education as an implementation strategy and tool for nutrition education without further analysis. This study attempts to emphasize that food education should be treated as a distinct discursive field from nutrition where multiple alternative discourses may exist, rather than see it simply as an extension of or in opposition to nutrition.

Finally, this chapter provides a brief review of relevant research on “real food,” noting that most studies lack an analysis of the discursive formation of this concept, a gap that this study attempts to fill.

2.1 Foucaultian Discourse Analysis

In the last few decades, discourse-oriented theories and research have been expanding significantly with growing importance in various disciplines of the social sciences and humanities (Keller, 2013). Potter and Wetherell (1987, p.6) think that the simultaneous developments around the topic of discourse in multiple disciplines lead to the difficulty of defining, and “perhaps the only thing all commentators agreed on in this area is that terminological confusions abound”.

The definition of “discourse” varies from one to another (see Keller, 2013); in a broader sense, the term “discourse” can mean “all forms of spoken interaction, formal and informal, and written texts of all kinds” (Potter and Wetherell, 1987, p.7). With the various definitions and notions of discourse, a range of approaches to discourse analysis have developed with various research concerns and focuses within the field of social sciences (Schiffrin et al., 2001). Therefore, discourse analysis as a research method is better understood as an umbrella term for a growing field covering a wide range of different theoretical approaches, analytic interests, and schools of thought (Harper, 2006; Nikander, 2008; Garrity, 2010). Keller (2013, p.3) also says that the term Discourse Analysis does not refer to any specific method, but rather to “a research perspective on particular research objects that are understood as discourses.”

Some scholars are concerned about the abuse of the term. For instance, Soyland and Kendall (1997) claim that discourse has almost become a term without any concrete meaning when referring to all forms of spoken interaction and written texts (Soyland and Kendall, 1997, p.10). Garrity also agrees that it becomes a concept that means everything and therefore comes to mean nothing (Garrity, 2010):

[T]here are many occasions in the texts where “language” and “discourse” are used to convey the same meaning... “Discourse” could here be replaced with “language” or “speech” without the meaning of the passage being altered in any way... this use of the term “discourse” does not make sense within a Foucauldian understanding (Garrity, 2010, p.196).

Among the variety of meanings of discourse, Nikander (2008) tries to identify what holds the research field together and claims that the foremost theme is “the habit of attending to discourse and talk in a multitude of interactional contexts and texts and focusing on the close study of language use” (Nikander, 2008, p.415); A second common theme is “the consideration of everyday language for its occasioned and situated functions” (Nikander, 2008, p.415); and the third a focus on “the persuasive and morally consequential aspects of language use” (Nikander, 2008, p.416). Keller (2013) thinks that Discourse theories and discourse analyses share certain common denominators, as most of them are concerned with the following aspects:

the actual use of (written or spoken) language and other symbolic forms in social practices;
emphasize that in the practical use of signs, meanings of phenomena are socially constructed and these phenomena are thereby constituted in their social reality;
claim that individual instances of interpretation may be understood as parts of a more comprehensive discourse structure that is temporarily produced and stabilized by specific institutional-organizational contexts;
and assume that the use of symbolic orders is subject to rules of interpretation and action that may be reconstructed (Keller, 2013, p.3).

Garrity (2010) and Soyland and Kendall (1997) both agree that FDA should adopt a more specific definition to reject the overly extended usage of it, so the meaning of discourse does not become depleted through lack of clarity. It is, however, posing a challenge for researchers that adopt this approach, as Foucault (1972; 1988; 2000; 2004) does not provide a clear and direct definition; what “discourse” refers to is usually discussed in negative terms. First, FDA opposes itself to Linguistics inspired discourse analysis (Garrity, 2010, p.197). Instead of asking questions about the rules of grammar, syntax, or the use of metaphor and metonymy, an FDA study focuses on the rules of verification of true and false. It is the “truth” but not the “meaning” produced that should be examined. But it is “not ‘the ensemble of truths to be discovered and accepted’ but, rather, ‘the ensemble of rules according to which the true and the false are separated and specific effects of power attached to the true’” have to be questioned (Foucault, 2000, p.132).

This emphasis on the rules distinguishes FDA from other approaches. When explaining the criteria for individualizing a discourse, Foucault emphasizes the importance of the identification of the rules of discursive formation, stating that “there is an individualized discursive formation whenever it is possible to define such a set of rules” (Foucault, 1991, p.54), and the unity of a discourse should be based on “the rule of simultaneous or successive emergence of the various objects that are named, described, analyzed, appreciated, or judged in that relation” (Foucault, 1972, p.36). Soyland & Kendall (1997) also state that although Foucault has been enlisted by many scholars to aid their various theisms, the focus on the rule is what distinguishes the Foucaultian approach from others: “Much of the work in discourse analysis... What is missing here is some understanding of the rules of formation of such discourses” (Soyland & Kendall, 1997, p.12). It is the rules that make the discursive objects thinkable and sayable in regulated ways, defining the relations that can be established with the objects. Therefore, Foucaultian research aims to detect the rules that govern the way statements exist in discursive formations, explaining how a statement can be accepted as a reasonable statement (Andersen, 2003, p.14).

To analyze the rules by which the statements making up a discourse are produced, Foucault suggests that we analyze it according to two axes:

on the one hand, that of codification/prescription (how it forms an ensemble of rules, procedures, means to an end, etc.), and on the other, that of true or false formulation (how it determines a domain of objects about which it is possible to articulate true or false propositions) (Foucault, 1991, p.79).

Wickham and Kendall (2003) also suggest that the four steps should be followed:

1. the identification of rules of the production of statements;
2. the identification of rules that delimit the sayable;
3. the identification of rules that create the spaces in which new statements can be made;
4. the identification of rules that ensure that a practice is material and discursive at

the same time (Wickham and Kendall, 2003, p.42).

FDA is also different from Critical Discourse Analysis (CDA), which employs a given concept (ideology) to account for the practices and aims to reveal the ideology behind the text and talk in the social and political context (Fairclough, 1992, 1995; Wodak, 1996). Represented by Norman Fairclough and Ruth Wodak, and Siegfried Ja"nger, CDA links Marxist's concept of ideology with Foucault's discourse theory (Keller, 2013, p.23) and establishes a critique of ideological functions of language use (Keller, 2011, p.47). Originating from within sociolinguistics, this approach aims to reveal the silent words hidden behind the text and talk in the social and political context (Fairclough, 1992, 1995; Wodak, 1996), which implies that only the researcher is capable of knowing and unmasking "the ideological and strategic use of language by 'those in power' to 'manipulate the people'" (Keller, 2011, p.48). But Foucault (1980) emphasizes multiple times that his research is not about ideology, as

The notion of ideology appears to me to be difficult to make use of, for three reasons. The first is that, like it or not, it always stands in virtual opposition to something else which is supposed to count as truth... The second drawback is that the concept of ideology refers, I think necessarily, to something of the order of a subject. Thirdly, ideology stands in a secondary position relative to something which functions as its infrastructure, as its material, economic determinant, etc. (Foucault, 1980, p.113).

What Foucault tries to do is to explain the formation of a discourse at the level of discourse itself. He warns about the danger of returning to the state anterior to discourse and asks that we shall not pass beyond discourse and shall "remain, or try to remain, at the level of discourse itself" (Foucault, 2004, p.53).

The analysis of thought is always allegorical in relation to the discourse that it employs. Its question is unfailingly: what was being said in what was said? The analysis of the discursive field is orientated in a quite different way; we must grasp the statement in the exact specificity of its occurrence; determine its conditions of existence, fix at least its limits, establish its correlations with other

statements that may be connected with it, and show what other forms of statement it excludes (Foucault, 2004, pp.30-31).

Introducing external deciding factors like ideology is exactly what he advises against, as it erases the efforts to describe the unique network of the identified discourse. It is not saying that an analysis of ideology does not contribute to our understanding of certain topics. In another article, Foucault acknowledges that

There was no doubt an ideology of education... But I do not think that it is ideologies that are shaped at the base... It is the actual instruments that form and accumulate knowledge, the observational methods, the recording techniques, the investigative research procedures, the verification mechanisms. (Foucault, 2004, pp.33-34)

To identify ideologies, one first has to know how it is produced with the use of the actual instruments, methods, techniques, procedures, and the verification mechanisms, which can in turn be identified by the knowledge produced and circulated.

Keller (2011) concludes that both CDA and Linguistics inspired discourse analysis fail to explain how a truth becomes real through all kinds of knowledge and may miss the broader network of its discursive formation:

... it considers the knowledge side and the 'power effects of discourses', the infrastructures of discourse production as well as the institutional effects and 'external' impacts on practice emerging out of discourses meeting fields of practices. Neither linguistic discourse research nor Critical Discourse Analysis...are dealing with this Foucauldian program (Keller, 2011, p.63-64).

Keller (2011) points out several key concepts to be included in an FDA study, including the knowledge and infrastructures of discourse production, which differs FDA from Critical Discursive Psychology or language-based approaches. As Hook (2001) explained: "Foucault's conception of discourse is situated far more closely to knowledge, materiality and power than it is to language...it is exactly the omission of

these three dimensions of analysis that so undermines... both Parker's (1992) and Potter & Wetherell's (1987) approaches" (Hook, 2001, p.542). Hook (2001) concluded that because of the lack of reference to the underwriting conditions of knowledge, the frame of what constitutes reasonable knowledge, and materiality, Parker's (1992) and Potter and Wetherell's (1987) discourse analysis "remains largely condemned to 'the markings of a textuality', a play of semantics, a decontextualized set of hermeneutic interpretations that can all too easily be dismissed" (Hook, 2001, p.542).

FDA first requires the researcher to review the knowledge available of the topic or area in interest. As Foucault (1972) pointed out, a discourse should be identified by the knowledge it forms, and Deleuze (1988) interpreted it more clearly: 'There is nothing prior to knowledge, because knowledge... is defined by the combinations of visible and articulable... Knowledge is a practical assemblage, a 'mechanism' of statements and visibilities. There is therefore nothing behind knowledge' (Deleuze, 1988, p.51). A Foucaultian approach refers back to Foucault's interests in the discursive constitution of knowledge and draws attention to discourse itself, starts from the practice of verification as it is given, and shows how certain truths about food were actually able to be observed and spoken through the problematization of food. For Foucault, a study of discourse must entail a focus on discourse-as-knowledge, analyzing discourse as a matter of the social, historical and political conditions under which statements can be verified as true or false (McHoul & Grace, 1997).

But what aspects should one examine when reviewing the knowledge to identify the discursive formation? This research proposes three aspects based on Foucault's (1972; 1988; 2004) discussions: the problematization of the object, the materiality and rules of practices, and the legitimation of the subject position. Only when the three aspects are identified and their relations defined can we confirm the existence of a discourse. First, the problematization of the object asks two questions: What object is raised as a question to be addressed? Under what conditions or in what context does the problematization take place? It should be noted that

Problematization doesn't mean the representation of a pre-existent object, nor

the creation through discourse of an object that doesn't exist. It's the set of discursive or non-discursive practices that makes something enter into the play of the true and false, and constitutes it as an object for thought (Foucault, 1988, p.257).

In this research, the question might be: What discursive or non-discursive practices that makes food enter into the play of the real and fake, and constitutes it as an object for thought? In what context does food become a new question to address? What truth is produced and distributed as a result? For Foucault, truth is not something corresponding to an objective and independent reality but offers itself to knowledge through a series of problematizations: “these problematizations are created only on the basis of ‘practices,’ practices of seeing and speaking. These practices, the process and the method, constitute the procedures for truth, ‘a history of truth’” (Deleuze, 1988, p.64).

It is the set of discursive and non-discursive practices that makes something enter into the play of the true and the false and constitutes it an object for thought (whether under the form of moral reflection, scientific knowledge, political analysis, etc.) (Foucault, 1988: p.257)

Therefore, to understand how the object is constituted and made to enter into the play of the true and the false (or the real and the fake), it requires an analysis of the second aspect of the discursive formation - the practice.

As Foucault indicates, the target of FDA is not institutions, theories or ideology, but practices or a “regime of practices”: “practices being understood here as places where what is said and what is done, rules imposed and reasons given, the planned and the taken for granted meet and interconnect” (Foucault, 1991, p.75). It is the practices but not ideologies that define the field where objects are allowed to appear according to certain rules or in certain conditions. For this study, we might ask: What practices are used to distinguish real food from fake? What rules are implied by the practices?

Here, by practices I do not mean the social actions that produce and reproduce the

social structures, as Giddens (1979) defined them, but only those of speaking and seeing, or say 'the discursive practices of statements, or the non-discursive practices of visibilities' (Deleuze, 1988, p.51) which are constitutive of knowledge and construct the object for verification. They are a set of actions with their logic and principles by which they can be identified. Practices have nothing to do with overall structures or individual intentions. They are something between, something local that can be adjusted according to specific needs without changing its logic, and something that cannot be integrated into a coherent structure. So the analysis of practices does not ask who wants to do it with what purpose, or what structure the practices to achieve uniformity, but explores their locality, historicity, and materiality. They can only be understood by the questions they raised and the problematization processes they involved. If practices appear to be consistent, it is not because they come from the same source, which is defined by an individual's intention or a general structure, but because they go to the same place, where a strategy of power functions.

Lastly, the legitimation of the subject position.

the problem for the archeology or (an) archeology of knowledge... will be regimes of truth, that is to say, the types of relations that link together manifestations of truth with their procedures and the subjects who are their operators, witnesses, or possibly objects (Foucault, 2012, p.100).

Foucault (2012) argues that every regime of truth, whether scientific or not, entails specific, more or less constraining ways of linking the manifestation of truth and the subject who carries it out. Who is qualified to tell the truth? Under what conditions or with what criteria? What is the relation(s) between the truth and the ones who witness and share it? Among the three aspects of the identification of the discursive formation, this might be the most difficult one, as the question of subjectivity tends to lead to the interpretation of individual intentions, which is rejected by Foucault:

Do not question discourses about their silently intended meanings, but about the fact and the conditions of their manifest appearance... It is a question of an analysis of the discourses in the dimension of their exteriority... To relate

the discourse not to a thought, mind or subject which engendered it, but to the practical field in which it is deployed (Foucault, 1991, pp.60-61).

Foucault (1991) constantly stresses that all psychological explanations of change should be bracketed (Foucault, 1991, p.56) to “exclude the problem of the subject, but to define the positions and functions that the subject could occupy in the diversity of discourse” (Foucault, 2004, p.220), advising about avoiding mixing up his analysis approach with psychological diagnosis: “it is another thing to describe the field of possibilities, the forms of operations, the types of transformation which characterize that person's discursive practice” (Foucault, 1991, p.58), as his approach does not refer to a cogito or an individual subject; it is “an anonymous field whose configuration defines the possible position of speaking subjects” (Foucault, 2004, p.137), “a space of differentiated subject-positions and subject-functions (Foucault, 1991, p.58).

This anonymous field of different subject positions has a specific “density, solidity, and facticity, and constitutes a level of reality that is irreducible to the subjective attributes of those who participate in it” (Dean, 1994, p.17), and the aim of FDA is “not to reveal a hidden meaning or deep truth, nor to trace the origin of discourse to a particular mind or founding subject, but to document its conditions of existence and the practical field in which it is deployed” (Smart, 2002, p.40). In this research, the question of the subject position is not about the food education promoters' thoughts about the issues or their insights and visions, as the subject is not the origin of the statement; it is the statement that determines what positions are available for the subject to occupy and become its enunciator (Garrity, 2010, p.202); it is the conditions that allow certain subjects to be qualified or disqualified to talk about food. Therefore, the focus of FDA is on procedures to reveal the particular functions of the subject, but not their personal experiences or inner life world (Garrity, 2010, p.208).

Instead of seeing the subject as the actor that determines or affects the discourse, this research sees it as a position that is decided by the discursive conditions; it does not attempt to contribute the ideas, theories, or practices to the psychological procedure, or to relate the formation of the discourse to a thought that might engender it. Rather, it describes the field of possibilities that characterizes the

speaking subject's functions and examines the practical field in which food education is deployed and practiced. More importantly, it tries to retain the diverse forms in the discourse and not deduce them from the intentions and interests of a person, group, or class. This research aims to describe the various and sometimes contrary concepts, their effectiveness, and the conditions of possibilities, which cannot be explained by the intentions or interests of any individual or group. The question is not "What do they say", "Why do they say so," or "What do they want to achieve," but to define the conditions that make it possible for one to make their voices heard. It is not this research's aim to understand the speeches' "meanings" or the "values" they bear, but to question the way the speeches are formed and the surrounding conditions that allow the speeches to travel.

It should be noted that the speaking subject is not simply the one who speaks to convey meaning or an individual who carries out certain operations (Foucault, 2004; Webb, 2013) but a particular place that could be filled by any individual (Foucault, 2004, p.107). Someone simply speaking or writing a statement does not mean that a speaking subject emerges; it is identified only when the position of the subject can be assigned in a discursive formation defined by the requisites and possibilities that allow certain objects to be known (Foucault, 2004). Simply talking about medicine does not make a journalist or teacher the subject of clinical medical discourse, as it is a position defined by a combination of relationships. If the doctor is the subject in clinical discourse,

[I]t is because a whole group of relations is involved... relations between the doctor's therapeutic role, his pedagogic role, his role as an intermediary in the diffusion of medical knowledge, and his role as a responsible representative of public health in the social space (Foucault, 2004, pp.58-59).

For food education discourse, what I aim to find out is not which groups or individuals are talking about food education, the diffusion of the voices, or the qualifications and obligations that the relevant professional systems confer on specific groups to promote the knowledge, but rather, starting from the problematization of food, I try to gradually identify the conditions and relations that

are formed, as well as the foundation for possible voices to be activated. The speaking subject should be identified in relation to the problematization process and the discursive object, rather than simply on the acts of speaking.

2.2 Criticism of Nutrition as the Way of Knowing Food

The rise of nutrition science has been witnessed in many countries with more and more knowledge regarding the connection between diet and illness produced and infiltrating the public understanding of food and dietary health. It has become commonplace to talk about food in terms of calories and nutrient profiles (Scrinis, 2013; Mudry, 2009), but this trend has increasingly been scrutinized by scholars for the reductive focus on the role of nutrients in disease prevention or control and decontextualized individual biologies (Pollan, 2007; Scrinis, 2008; Nestle 2000). It is most criticized that the standardization of food's value in calories and nutrients to be compared on a one-dimensional scale narrows the understanding of food to be the sum of these standard parts. This reductive scientific focus on and interpretation of nutrients systematically decontextualizes foods, dietary patterns, and broader social environments in which they are embedded. By limiting the value of food to its nutritional components, they are made interchangeable sources of calories and macronutrients, creating a singular experience that relieves food of its aesthetic quality and undermines people's experience of food and associated traditional or cultural practices (Mayes & Thompson, 2015; Coveney, 2006). The social or cultural aspect of dietary experience is separated from food as a scientific object.

Scrinis's (2013) work provides great insights into the paradigm that he calls "nutritionism." He examined the scientific literature, expert debates, government-issued dietary guidelines and reports, popular books, nutritional marketing, and public discourses on food and nutrition in the United States to understand how the scientific knowledge of nutrients and foods is generated and translated into dietary guidelines and other regulations. He argues that nutritionism as a paradigm carries the assumption that the "healthfulness of foods can be adequately studied—and translated into dietary advice—on the basis of the quantities of some of its nutrient components" (Scrinis, 2013, p.66), and the qualitative differences of different types of foods are flattened out at the nutritional level: "These abstract nutritional

categories also cut across the distinctions among types of foods and food groups... in the sense that all of these foods are encountered as just different combinations of nutrients” (Scrinis, 2013, p.65).

The standardization of food’s value based on their nutrient and biochemical composition then drove the commodification of food and health, creating ideal conditions for the food industry to capitalize on through the production and active promotion of nutritional supplements and functional foods, which Scrinis (2013) claims to be a further form of simplification, isolation, and reduction, “the purest expression of a nutritionally reductive technological practice, since the nutrients or other food components they contain not only have been technologically isolated but also are then consumed in isolation from any particular foods” (Scrinis, 2013, p.85).

It is also a common criticism that nutrition science promotes a reductive approach to the body, in which “bodily health is reduced to a number of biomarkers and biochemical and genetic processes” (Scrinis, 2013, p.87). As a result, a “metric subject” (Mudry, 2014, p.38) or what Scrinis (2013, p.90) calls a “nutricentric person” is created, who internalizes the nutricentric understanding of food and the body, views food through measurements of constituent ingredients, and compares the nutrition data to achieve the ideal status of “health” that is defined by a set of biomarkers.

Another criticism often made is that nutrition science undermines and displaces other ways of understanding the relationship between food and the body. Scrinis (2013, p.140) indicates that the way we talk about food is suffused with “nutri-speak”:

The everyday language we use to talk about food and dietary health has also been steadily colonized by a proliferation of nutritional categories and concepts. This nutri-speak has systematically replaced references to actual foods or to food quality (Scrinis, 2013, p.26).

Mudry (2009) examines the United States Department of Agriculture’s (USDA) American federal food guides to understand how nutrition science is developed in America and to illustrate what effects the scientific and quantitative discourse

regarding food, nutrition, and health has had. After the scrutiny of the nutrition science and public health policies, she criticizes the discourse of quantification for its attempt to eliminate plurality in favor of a unified voice and suppress the diversity of food knowledges, arguing that the development and prevalence of dietary guides and other nutrition instructions eradicated people's dietary experience and narrowed their conception of health. The practices of quantification create a controlling ideology of nutritionism that leads to a loss of other forms of food knowledge (Mudry, 2009).

Hayes-Conroy and Hayes-Conroy (2013) also criticize the dominance of nutrition science, arguing that "hegemonic nutrition" standardizes the food-body relationship through the standard of the calorie, reduces nourishment to macro- and micro-nutrients, decontextualizes nourishment from the political-economic, socio-spatial, and cultural locations in which it takes place, and denigrates other food knowledges with the hierarchical knowledge system upon which hegemonic nutrition is based.

Hegemonic nutrition pretends to know food from nowhere, while being applicable everywhere; its disembodied objectivity not only attempts to universalize the richness of regional cultures and the complexities of the human-food-environment relationship, but it also feigns sensitivity to place and the epistemologies of location by incorporating them into its calculable logic (Hayes-Conroy and Hayes-Conroy, 2013, p.2).

2.3 Other Ways of Knowing Food

Increasingly, researchers are rethinking and critiquing nutrition as the dominant food knowledge and trying to find other possible ways of knowing food. Hayes-Conroy and Hayes-Conroy (2013) emphasize the importance of exploring already-existing or imaginable alternative ways of doing and knowing the food-body relationship and opening up the scope of possibility for nutritional alternatives, as hegemonic nutrition makes it harder to think and value food in ways outside of the scientific, standardized approach (Hayes-Conroy and Hayes-Conroy, 2013, p.6). Welch, McMahon and Wright (2012, p.725) also contend that it is crucial to re-envision discourses of food and find alternative ways of thinking about food that might be compromised,

unimaginable and marginalized, calling for more research exploring alternative food knowledges and pedagogies.

Scrinis (2013) considers other approaches to food continue to coexist with the nutricentric approach and proposes three alternative approaches that could shift the focus from nutrients to foods, displace our reliance on nutritional knowledge, and provide a more integrated understanding of food to help people become “food quality literate, rather than just nutritionally literate” (Scrinis, 2013, p.473): The food quality approach, the culture-history approach, and the sensual-practical approach.

The food quality approach prioritizes food production and processing quality; it evaluates foods in terms of their production and processing quality rather than in terms of nutrient composition, which Scrinis (2013, p.422) suggests can be used as the basis of alternative dietary guidelines and food and nutrition policies. He further proposes a food classification system that distinguishes food ingredients based on the levels and intensity of technological processing (Scrinis, 2013, p.408), so the production and processing quality of food is placed at the center of our understanding of food and health.

The culture-history approach to food offers another range of insights to contextualize scientific knowledge of nutrients, foods, and dietary patterns (Scrinis, 2013, p.470). It uses traditional dietary patterns and cultural knowledge as a guide for preparing and choosing foods and allows the eater to appreciate the wisdom embedded in traditional dietary patterns. The accumulated knowledge embedded in the traditional cuisines and recipes provides “a perspective from which to question the healthfulness of novel foods and food processing techniques, as well as changes in the form and quantity of foods consumed today” (Scrinis, 2013, p.426).

Lastly, the sensual-practical approach acknowledges that our palates need to be trained or reeducated through the practices of growing, preparing, and cooking food to better understand and appreciate the flavors of the foods they consider to be of good quality (Scrinis, 2013, p.437); one’s personal experience can be used as a legitimate source of knowledge to contextualize the scientific interpretation of one’s biomarkers (Scrinis, 2013, pp.438-439).

With her criticism that nutritionism leads to a loss of other food knowledges and that the quantification approach to food remains the dominant voice, Mudry (2009, p.138) claims that other food discourses still exist and grow. After examining cookbooks, food writing, websites, television shows, and newspaper articles that are considered to “provide the reader with the most powerful bases for considering an alternative understanding of food” (Mudry, 2009, p.140), Mudry proposes three alternative discourses that could ground qualitative knowledge of food in a discourse of taste instead of quantification. By elucidating the alternative discourses, Mudry (2009) tries to provide a set of tools with which to see the shortcomings of a discourse of quantification and to reflect upon the contemporary dietary patterns and food issues, offering a more complete picture of the eating experience. The discourses she proposes draw their authority from disciplines from history, geography, and personal experience:

A discourse of taste that issues from the authority of history might cast quality in terms of tradition or techniques for making food taste a particular way in order to preserve culture or ritual. A discourse of taste that issues from geography might attend to quality by highlighting the idiosyncrasies and particularities of a region’s food, the authority of which comes from difference and not normalization. A discourse of taste that issues from personal experience is grounded in the pleasure of eating in particular ways, at particular times, and with particular people (Mudry, 2009, p.138).

The discourse of history “treat food as traditional, ritualistic, and cultural and attempt to pass down knowledge and qualitative understandings of food through techniques of preparation, memory, and menu selection”, aiming to “uphold a language that relies on the authority of past experience” and empower the eater to make knowledge claims about quality through referencing tradition and history (Mudry, 2009, p.140, p.142); the discourse of geography contrasts the normalizing effects of a discourse of quantification by indicating the impossibility of generalization of food when its qualities embody the place it origins, as well as the particularities in soil, weather, location, and seasons (Mudry, 2009, p.140); and the discourse of personal experience “eschews the replacement of personal judgments with measurements

and rejects the objectivity of a quantitative discourse,” encouraging the eater to articulate the dietary experience beyond calories and nutrients and making the eater the sensory authority to define “good” by their personal encounters with food (Mudry, 2009, pp.140-141). Mudry (2009) argues that as each of the above discourses assumes an authoritative voice other than nutrition professionals: “the eater, the farmer, the chef, or the gastronome” (Mudry, 2009, p.139), they might be able to pose opportunities to challenge the dominant voice of nutrition science.

Though claiming to identify alternative discourses of food and point to where they reside, Mudry (2009) only provides certain “topics” that can be discussed when talking about food but not quite “discourses.” This is made clear by her definition of discourse on a rhetorical level, seeing it as the use of language or a communicative practice. She explains that her study of the history of food and nutrition is “a rhetorical history” which “considers the ways in which persuasive discourse has been shaped ... and how... symbolic performances have influenced, or attempted to influence, practical choices” (Mudry, 2009, p.8). Mudry then explains that the word “discourse” is used to “highlight the organized and structured nature of scientific language, and to point to the importance of viewing language as a form of social practice” (Mudry, 2009, p.9). For Mudry (2009), the nutrition discourse is a way to generate authoritative claims and knowledge, a form of persuasive communication that aims to convince the audience what and how to eat, and other discourses are potentially better ways of communication with different authoritative claims. Therefore, her research questions are about

[T]he ways in which specific ways of talking about food ground, legitimize, or authorize specific claims. From the perspective of communication, the question becomes... Why are certain justifications of eating practices or descriptions of food particularly persuasive? ... other kinds of discourse generate authority and ground knowledge claims in other kinds of ways.(Mudry,2009, p.142)

It is crucial to acknowledge the use of language as a form of practice, but the materiality of the practices and the truth effects cannot be ignored completely. Mudry (2009) provides an inspiring discussion about the contents of other food knowledges

and alternative ways of communication, but it is not the language but the practices that generate knowledge should be studied, and the analysis of contents of knowledge should be shifted to the analysis of the discursive practices as regulated forms of veridiction that generate knowledge; what should be examined is not the effects of communication but the rules, the game of true and false, and the forms of veridiction in these discursive practices. What decides the ways of knowing food is not in the words we use but the discursive network that supports the word choices available, along with the context of problematization, practices, and subject positions formed with the discursive object (instead of what Mudry suggests, granted by the use of language). The discourse of quantification (Mudry, 2009) is not formed by the use of numbers as the main method of communication, but by the use of measurement technology, biochemical experiments, instruments, and a nutrition labeling system that allows food to be accessed numerically. The identification of other food discourses also requires that we identify the physical foundation and the rules of veridiction.

Compared with their comprehensive, systematic analyses of nutrition science and dietary guides, Scrinis's (2013) and Mudry's (2009) reviews of the other food knowledges appear to be more of a discussion than a careful examination, which might be partly because these alternative ways of knowing food are not relatively well-defined disciplines like nutrition science, and therefore the scope of analysis cannot be easily identified. As Mudry (2009) admits, because alternative discourses reside in diverse places, lack institutional status or "any coherent or central organization for the control and dissemination of a language, and do not seek hegemonic status in official food policies" (Mudry, 2009, p.139, p.141), it is difficult to identify them. Despite the different definitions of "discourse," Mudry (2009) is right about the difficulty of identifying other food discourses, not because they do not have a central organization for the control and dissemination of a language, but because it requires individual examinations for the formation of each discourse.

For instance, with Scrinis's (2013) and Mudry's (2009) work, we can identify the discursive formation of nutrition with the food calorimeter as its symbol. Firstly, the context of the problematization of food: To address labor unrest over inadequate wages, employers in North America and Europe needed to "quantify the minimum

wages required to purchase a nutritionally adequate diet,” and in Germany, nutrition scientists were looking for a way to feed the urban masses and contain political unrest “by devising and promoting economically and scientifically ‘rational’ diets” (Scrinis, 2013, p.123). Second, the physical foundation for the discursive object - in this case, calories - to form: With the invention and use of the calorimeter, it was made possible to quantify the energy contained in foods and the rate at which this energy was expended in the worker’s body during various activities (Scrinis, 2013, p.118). Lastly, the formation of the speaking subject: “Because ‘reading’ the calorimeter required one to speak the ‘secret language,’ the scientist became the interpreter between the calorimeter and the ideas it produced (Mudry, 2009, p.39). It is only with the actual use of this technology that food can be calculated, measured, and empirically Known (Mudry, 2009, p.39), and “the calorie would become the essential signifier of the nature of a food” (Mudry, 2009, p.45).

But for the sensual-practical approach to food (Scrinis, 2013) or a discourse of taste (Mudry, 2009), they did not seem to provide any details in terms of the problematization, the formation of the object, and the subject position. What we need to identify other possible food discourses is the same inquiry into the discursive formation, as not every topic available to talk about food indicates the existence of a discourse; it can only be located with individual examinations.

2.4 Food Education/Pedagogies/Literacy and Nutrition Education

The alternative ways of knowing food Mudry (2009) and Scrinis (2013) proposed seem to be growing in the field of food education with the aim to “re-establish lost knowledge, skills, attitudes and values that can restore our sensual, cultural and ecological connections to food to reduce ‘nutrition confusion’” (Colatruglio and Slater, 2014, p.44), and the growing, preparing, cooking and tasting of food have become popular pedagogical activities. This emerging field provides a great opportunity to explore the existence of possible alternative food discourses, but the inconsistent definition of food literacy (Vidgen, 2016) makes it difficult to define a research scope. Though recognizing that food literacy could be used in policy and practice as a possible framework to re-define what people need to know and be able to do with

respect to food, Colatruglio and Slater (2014) indicate the fact that it lacks a generalized meaning or understanding of what it is (Colatruglio and Slater, 2014, p.45).

Japan's Basic Law on Food Education defines it as the "acquisition of knowledge about food as well as the ability to make appropriate food choices through various experiences related to food, in order to develop people in the ability to practice a healthy diet" (Naikakufu, 2005, p.3). As almost every food issue is covered, it is difficult to provide a clear definition of food education. Several studies notice the lack of shared understanding of its meaning and attempt to develop a clear definition (Summer, 2013; Benn, 2014; Colatruglio and Slater, 2014; Vidgen and Gallegos, 2014; Truman, Lane, and Elliott, 2017). In a broad sense, food education involves various forms of formal or informal education and learning practices inside and beyond the classroom which focus on growing, shopping, cooking, eating and disposing of food (Flowers and Swan, 2019).

The researchers' preferences further complicate the situation. For instance, Aya Kimura (2011) defines food literacy as a reduced and deficit form of food education, while Flowers and Swan (2012) decide to choose "food pedagogies" rather than terms such as "food education", "food and informal learning" or "food literacies", because

it is capacious enough to denote a range of sites, processes, curricula, 'learners' and even types of human and non-human 'teachers' but tight enough to refer to some kind of intended or emergent change in behaviour, habit, emotion, cognition, and/or knowledge at an individual, family, group or collective level. (Flowers and Swan, 2012, pp.424-425).

Aside from the inconsistent definition of food education or food literacy, the Indiscriminate and confusing use of nutrition and food education (for instance, Leahy and Pike, 2019) poses a more fundamental problem. It is the same for Leer and Wistoft (2018). When they examined the studies on taste education to "question the long-standing perception of food and nutrition education based on objective truths and control-oriented strategies (Leer and Wistoft, 2018, p.333) and claim that "food

education” in the Western world is focused almost exclusively on rigid health norms and simplified understandings of nutrition (Leer and Wistoft, 2018, p.329), it is clear that they consider food education and nutrition education interchangeable. This conception of nutrition and food education as a collective area appears in their article multiple times:

This article contributes to the critical debate about nutrition and food education by offering a critical health education analysis of how taste education has been conducted and evaluated in contemporary food education (Leer and Wistoft, 2018, p.334).

Much of this critique of nutrition discourse and education is concerned with the use of scientific discourse to discipline and control bodies and identities... A central point is often that food education is closely related to scientific regimes of truth... (Leer and Wistoft, 2018, p.334).

Perry et al. (2017) conducted a scoping review of the literature to identify attributes of food literacy, arguing that “an absence of food literacy measurement tools makes it challenging for nutrition practitioners to assess the impact of food literacy on healthy diets and to evaluate the outcomes of food literacy interventions” (Perry et.al., 2017, p.2406). Their attempt to quantify food literacy and the assumption that nutrition practitioners need to assess the impact of food literacy also suggest that food literacy is no different than nutrition literacy.

Besides the interchangeable use of food education and nutrition education, some other researchers attempt to incorporate one into the other. Hayes-Conroy and Hayes-Conroy (2013) apply the depiction of the economy as an iceberg to nutrition and argue that “what is usually regarded as ‘nutrition’... is just the tip of the iceberg in terms of the processes and practices involved with sustaining embodied life through food, while other aspects of nourishing bodies such as community gardens, traditional foodways, and gastronomy sit beneath the surface. They consider nutrition and other alternative discourse to be a continuous whole (Hayes-Conroy and Hayes-Conroy, 2013, p.5), but it is as dangerous as the assumption of the dichotomy between nutrition and food education if no research is conducted to identify their overlaps and differences. Begley (2016) indicates the opposite trend to

reframe nutrition education as food literacy (Begley, 2016, p.186), but she then argues that

Food literacy programmes appear to have evolved as experiential practice forms of nutrition education that move away from reliance on nutrition knowledge transmission. Part of the increasing interest in food literacy programmes is their evolution as a form of nutrition education as driven by a need to consider specific target groups (Begley, 2016, p.188).

Begley and Vidgen (2016) try to address the confusion, arguing that nutrition education focuses on food intake and health, while food literacy covers a wider range of topics from “food management, planning, production, selection, preparation, and processing to food choice and eating” (Begley and Vidgen, 2016, p.17), but they also point out that “the search for a term to encapsulate the knowledge and skills required to eat has uncovered no single reality or truth about these activities” (Begley and Vidgen, 2016, p.28). The relations between nutrition and food education might not be able to be identified with a conceptual framework; it requires a thorough inquiry into the discursive network that is formed between them.

All in all, food literacy means everything and solves everything. As Begley (2016) points out, “food literacy programmes are being funded as a panacea for a range of public health nutrition issues such as increasing obesity, chronic disease and food insecurity” (Begley, 2016, p.186). The same situation happens in Taiwan when food education is proposed as the solution to food safety issues. A lack of practical knowledge of food and narrowed dietary experiences are considered to be the key to solving food safety issues, but how is this leap made possible? Or what rationality connects food safety to food education? What standards, rules, or concepts are used to justify the solution so it can be considered a reasonable response to an issue that is seemingly irrelevant? Why not tighten the control of the food industry or improve the capacity of food product examination? By examining the discursive formation of food education in Taiwan, this study attempts to address these questions.

2.5 Real Food

After the food safety scandals in Taiwan that led to the development of food education, the discussions of “real food” have been growing in the public arena. This section reviews some selected research to provide a general picture of the topic.

In the study of nutritionism, Scrinis points out that there has been “a growing emphasis within popular and expert food discourses on the need to eat what is now often simply referred to as ‘real food,’ and which typically means whole, ‘natural,’ or traditional foods” (Scrinis, 2013, p.49), creating tension between the nutricentric and real food approaches (Scrinis, 2013, p.50). Scrinis (2013) argues that “this demand for real food has in fact become a movement—and an ideology” (Scrinis, 2013, p.49) that is just another way of calling “good quality food”:

Virtually everyone interested in food and nutrition today promotes and celebrates the production and consumption of good-quality food, or what is now often simply called “real food.” While “quality” is a contested term, among contemporary food movements there is a fair degree of consensus about what constitutes good-quality or real food (p.404).

Scrinis’s (2013) interpretation does not provide any specific context as to how the notion of “real food” emerged and simply views it as a symbol or concept that is convenient to refer to a certain kind of food. Besides Scrinis (2013), there have been numerous studies on the authenticity and realness of food. However, most of them take the notion of “real” as an impression or an abstract concept that is associated symbolically with certain types of food without recognizing the discursive network it requires to take shape. For instance, Lyons, Lockie & Lawrence (2001) examine the various meanings consumers associate with organic food, and find that organic foods are constructed as more “real” foods than conventionally-produced foods; Pratt (2007, p.293) reviews existing studies on alternative food movements, indicating that the notion of authenticity evokes a range of meanings: “original, genuine, real, true, true to itself” and could become synonymous with each other in a pre-set discursive field, for instance “the local is authentic” (Pratt, 2007, p.287); similarly, Benny (2012) indicates that in scholarly and popular discussions on cooking, terms such as

“traditional’ are used to mean natural, unprocessed and “authentic” products (Benny, 2012, pp.596-597).

Campbell (2009) extends McMichael’s (2002) notion of “Food from Nowhere” versus “Food from Somewhere” and interrogates the emergence of a cluster of relations that comprise “Food from Somewhere.” Campbell (2009) argues that the establishment of the WTO resulted in what can be termed the “Food from Nowhere” regime, which obscures the social, geographical, economic and technical bases of the production. “Food from Somewhere”, on the contrary, includes more information in comparison to the invisibility and distancing characterizing “Food from Nowhere”. The appellations and indications of origin (AIO) based on the terroir concept then provide another possibility of verification of real food. As West (2013) pointed out, the AIOs “construct the authenticity of the products they purport to defend” (West, 2013, p.215).

Carroll and Wheaton (2009) examine the construction of authenticity of food in the U.S. and provide a relatively more systematic review, identifying two types of authenticity: “type authenticity” which indicates something is true to its type, and “moral authenticity” that signifies that “the choices behind something reflect the morally sincere beliefs of those involved” (Carroll and Wheaton, 2009, p.257). But the two types of authenticity are considered merely “the two very different classical symbolic interpretations of authenticity” (Carroll and Wheaton, 2009, p.255), and therefore it provides no context in terms of the conditions for the interpretations. Rather than seeing it as a discourse of its own, these studies consider the notion of authenticity and realness more as a symbolic existence or a concept that is ideologically decided; instead of indicating the “interpretation” or the meaning given to certain kinds of foods, the above studies fail to explain the formation of “real food” or illustrate the procedures that make such construction or association possible.

Atkins (2013) uses the historiography of adulteration to argue that the problem of knowing whether food is genuine is not about reflecting but creating realities, concluding that ‘rather than identifying “genuine” and “falsified” as different and separate categories, we can see them as modulated answers to the same question: “what is food?”’ (Atkins, 2013, p.97). Atkins (2013) pointed out this question

intelligently, but he did not conceive it as a question of discourse. Through his analysis of the historiography of food quality and adulteration, Atkins (2013) identified two traditions of the administrative and legal practices of controlling food quality, the measurement-based and place-based conceptions, and each of them refers to a different conception of realness, responding to the question “what is real food” distinctively. The first one is centered around the natural variability of the constituents of foods with physics and organic chemistry “to know food... and they provided frameworks to develop concepts such as genuine, pure, authentic, and natural” (Atkins, 2013, p.107).

These concepts relate to realness in varying degrees, and real food in this tradition is what matches explicitly the components identified. Instead of being based upon the building of scientific knowledge, backed by systems of control that used sampling and laboratory-based analysis, the second tradition is established on the local social, economic, cultural, and environmental context where food is produced and consumed. In countries such as France and Italy, food quality is associated with the peasant and artisan of a region, local skills, and the soils and micro-climate (Atkins, 2011). The most well-known example is the idea of Appellations d’Origine Contrôlées (controlled designation of origin), which was incorporated into the legal framework of the European Union in the 1990s, and the notion of terroir has inspired and facilitated re-localization of the food system in America and other countries. This conception distinguishes itself from the measurement-based one, conceiving real food as a product inseparable from the broader context of production. The realness is not identifiable by the nutrients examined but by the place it is produced. Real food comes from somewhere, and the natural environment and productive traditions define the food.

It seems that most of the existing studies do not consider “real food” to be a discursively physical existence but an abstract symbol with nothing further to explore. By analyzing the notion of “real food” that comes with the development of food education in Taiwan, this study might be able to contribute to the research topic and offer a different perspective on the emergence of the realness of food.

Chapter 3 Method

While Chapter 2 reviews the differences between Foucauldian discourse analysis (FDA) as the theoretical framework of this study and other discourse analysis approaches, this chapter presents a summary of my research problems, explains what limitations FDA has when it is used as a research method and how these limitations can be addressed, and describes the various types of data collected as part of the research process to address the aforementioned problems. This study attempts to clarify the differences between nutrition education and food education in Taiwan. Specifically, rather than investigating the nature of nutrition and food education as subject matters or their levels of efficiency as population health interventions, this study investigates the problems they raise concerning food as the discursive object and the discursive space where certain rationalities can take shape. This space revolves around the following: The context of problematization, the object of knowledge, and the conditions that allow the subject positions to take shape.

First, how food is problematized through the discourses of nutrition and food education? That is, in what background and historical context does food become a problem that needs to be addressed? What is the foundation of its rationality? What concepts are referenced for the foundation to be established? What practices and processes are derived? And what rationale and logic underlies these processes? Second, what aspects or dimensions of food need to be known, and how this understanding is made possible? Lastly, who is qualified to address the problem and educate others about food? What formal or informal criteria and standards should the subject meet?

Here, the subject should not be confused with the individual actors, as the focus of discourse analysis is not the attributes of the actor but the discursive, institutional, and practical conditions of action (Dean, 1994), and the subject forms a part of the discourse where certain functions could be activated. Although it is legitimate and important to ask about one's personal experiences and how they led to certain actions being taken, "it is another thing to describe the field of possibilities, the forms

of operations, the types of transformation which characterize that person's discursive practice" (Foucault, 1991, p.58). What "different possibilities of knowing food" this study attempts to describe means is not some random thoughts or ideas without ground but concrete connections of existing concepts, practices, and measures observable in their physical forms that allow various types of food knowledge to be produced and circulated. To properly describe the discursive relationships, it is suggested that we bracket all psychological explanations of change and instead define the transformation that constituted change (Foucault, 1991, p.56). As this study does not intend to explore the intentions, feelings, or purposes of the interviewee, methods such as interviews and focus groups are therefore not considered.

Using interviews for discourse analysis could cause other methodological difficulties as well. One is that "participants invariably orient towards the interview situation and, as a result, our discursive analysis will reveal more about the ways in which the participant manages his or her stake in the interview as an interviewee" (Carla, 2013, p.348). As the answers are partly shaped by the conditions, environment, and the interaction between the interviewer and interviewees, the data obtained from an interview are less relevant to the discursive conditions I attempt to study, and the participation of the interviewer creates a gap between the data from researcher-designed interviews and other texts that is difficult to justify and explain. Even Cruickshank (2012) argues that "interviews provide an opportunity to gain insight into the resistance of the subject" (Cruickshank, 2012, p.49), the incompatibility between these two types of data is still left unaddressed. Therefore, discourse analysis usually relies more on texts that are already available for collection, as the formation of a discourse is complex and multifaceted and cannot be covered by any single text. It requires heterogeneous materials to capture the whole picture (Keller, 2013, p.85). It is therefore suggested that naturally occurring texts should be used for discourse analysis (Hepburn and Wiggins 2005; Potter and Hepburn 2005).

For FDA, the qualification of the subject is determined not by external conditions (e.g., who has the authority or what the dominant ideology is) but by its relationships with the problematized context and the object of discourse. The use of discourse

analysis as the research method and the discourse of food education as the research topic during data collection entails the following limitations. First, FDA is less than systematic; it essentially provides a different dimension for data analysis. Because of this, other discourse analysis approaches and Foucault's theories are applied to complement the design of the present study to determine data collection with respect to the method, type, scope, and content.

Second, as the discourse of food education is difficult to define, there is no specific scope for collecting relevant data. A discourse is formed among the network of events, concepts, and practices, which have no common features that can be straightforwardly identified, nor do they share boundaries and units of analysis. They may even exist in different types of text, topics, or fields. The discourse of nutrition education, by contrast, receives extensive research, making it relatively easy to acquire relevant text data for analysis, such as dietary guidelines and nutrition survey reports. Food education is loosely defined and, unlike nutrition education, does not point to an identified discursive object. To address this limitation, after examining the food education projects and articles on food safety scandals collected, the researcher limits the scope to the discussions of "real foods" as the focus and explores what other discursive connections are formed around it. Moreover, data about the food education discourse are collected in a flexible manner—with laws, lesson plans, and media reports regarding food education gathered (taking into account certain organizations, keywords, and other criteria) in the early stage of research to explore how this discourse is formed, and relevant data collected for subsequent analysis after the likely discursive object, practice, or subject position of the discourse is identified. After all the data are examined, this study collects additional data to further examine the notion of "original taste," whereby real and fake foods are distinguished, and the notion of "honesty" for the qualified subject to speak.

Despite the aforementioned limitations, discourse analysis sheds unique light on the formation of food education, particularly when it comes to how heterogeneous factors merge to encourage the development of certain measures and policies. This chapter concludes with all types of data concerning food and nutrition education that are collected for analysis (which include laws, government documents, local plans,

media reports, lesson plans, books, and magazines) and with the focus of analysis for each data type.

3.1 Foucaultian Discourse Analysis as Method

Discourse analysis, especially Foucaultian discourse analysis, has been criticized for privileging discourse over social actors (for example, see Borg, 2015; Langdrige, 2004; Burr, 2002; Butt and Langdrige, 2003). A common criticism of Foucault's works is that the effects of the technologies of power upon individual agency are over-emphasized, and the subject is reduced to a mere passive effect and an epiphenomenon (Borg, 2015; Giddens, 1984), while one's conscious plan and action are not taken into consideration (Taylor, 1984). Another related criticism is that Foucault's conceptualization of practice is inadequate. Fairclough argues that Foucault tends to oversimplify practice by exclusively emphasizing structural aspects, and this approach leaves the impression of individuals being rendered powerless in the face of "immovable systems of power" (Fairclough, 1992, p.57).

For this study, one might argue that if what can be thought and said about food is determined by discourses, how is it possible to search for other possibilities of knowing food? What is left for the subject to act upon? However, discourse should not be seen as absolute determination. Such criticism does not consider the fact that practices and actions are not freely invented by the subject who is outside power relations and discursive connections in which one lives. What FDA tries to do is not to limit individual's agency but to "demonstrate the diversity and multiplicities of positions and functions that subjects can take up simultaneously" (Garrity, 2010, p.205); it "opens up new fields of inquiry, points to possibilities of change, and gives form to... the undefined work of freedom" (Borg, 2015, p.15), allowing analysis to operate across different levels to create a new dimension for thinking about the issues of interest and explore the subject's field of possible action. One has to first know what conditions and resources are available to take any action, as possibilities are not without ground, and subjects cannot rid themselves of the conditions that make them subjects. FDA provides an option for us to "separate out, from the contingency that has made us what we are, the possibility of no longer being, doing, or thinking what we are, do, or think" (Foucault, 1984).

Chapter Two has explained the differences between FDA as a theoretical framework and other Discourse Analysis (DA) approaches, but when used as a research method, it encounters the same problem as other discourse analysis approaches, that is, the lack of concrete strategies for the collecting and processing of material. DA is often described as a methodology or a theoretical perspective rather than a method (Phillips & Hardy, 2002), and there is no formally specified set of procedures to follow (Nikander, 2008). Harper (2006, p.57) also points out that DA is not a simple technique that can be mechanistically applied, and the researcher has to identify a topic to which it can be reasonably applied and adapt the procedures of data collection and analysis. They suggest that due to the relatively unstructured nature of this analytic approach, researchers using DA need to become familiar with a wide range of literature. Although Foucault (1972) tried to provide an introduction to his methodology in *The Archaeology of Knowledge*, there are few or even no systematic methodological guidelines or procedures for investigation (Triantafillou, 2012; Keller, 2013). Dean even claims that "Foucault never sought to apply a particular system or to allow his own heuristics to congeal into a fixed, formal method" (Dean, 1994, p.14), arguing that he intentionally avoided adopting a standardized method or turning his analysis into a theory. Therefore, referencing Foucault for the research method or design has little to say about actual methodological procedures. Hence, Garrity suggests that since there is clearly no systematic methodology, it is better used as "a way of understanding knowledge without hierarchies" (Garrity, 2010, p.207).

Though several attempts have been made to extract certain broad analytical guidelines (e.g. Dean, 1999; Wickham and Kendall, 2003), there is still no standard procedure that can be directly applied. It might be fair to say that when it comes to the handling of specific research topics, FDA is more of a framework for interpreting the data. This study therefore incorporates guidelines from different DA approaches for the reference of data collection and processing.

Adapting Foucault's approach causes certain difficulties in defining the corpus of texts for analysis, as Foucault's work has been commonly criticized for not employing recognizable methodologies (Tamboukou, 1999, p.211). Andersen (2003) comments

on Foucault's methodology and argues that discourse is not self-evident; as a result, the first task is to carefully outline the body of statements to be analyzed and construct the archive. However, due to the nature of discourse, "it is both practically and theoretically impossible to reproduce a discursive totality by means of a representative, selected sampling of texts" (Angermuller, 2014, p.58). Foucault (1980) himself admitted that when studying the discourses of madness and prison, the corpus is undefined, and "it will never be possible to constitute the ensemble of discourses on madness as a unity, even by restricting oneself to a given country or period" (Foucault, 1980, p.38). When talking about his study of prisons, Foucault (1980) argues that it would be no sense to limit oneself to directly related discourses, because "the decisions and regulations which are among its constitutive elements, its means of functioning, along with its strategies, its covert discourses and ruses" are as important as the discourses within the prison.

To address this issue of defining the body of data to be analyzed, Andersen (2003) suggests that the analyst should broaden the scope of reading for a more comprehensive understanding of certain themes, as they may relate to the research topic in unexpected ways.

Naturally, it is impossible to decide in advance which discursive formation regulates the dispersion of particular statements... it is necessary to travel the long and cautious road via the archive in order to approach the question of the shaping of specific discursive formations... since it is not possible to define the discursive formation beforehand, one cannot limit one's reading to a theme... Themes can relate to each other in unpredictable ways... We therefore have to follow the references of the statement and the references of the references in time and space in the broadest sense, until they appear to form a completed whole (Andersen, 2003, p.13).

Foucault (2004) talks about the example of psychiatric discipline, explaining that its discursive practice

is not only manifested in a discipline possessing a scientific status and scientific pretensions; it is also found in operation in legal texts, in literature, in

philosophy, in political decisions, and in the statements made and the opinions expressed in daily life... This discursive practice was certainly present in medicine, but it was also to be found in administrative regulations, in literary or philosophical texts, in casuistics, in the theories or projects of obligatory labour or assistance to the poor. (Foucault, 2004, p.197-198).

This broad reading is especially necessary for the analysis of food education, as the discussion of food education is not only located in government documents, textbooks, technical materials, institutional regulations and political decisions, but also in non-scientific, literary or other informal documents (Foucault, 2004). Therefore, the data collected in this research includes a wide range of texts in order to increase the possibility of identifying discursive relations. As Keller (2013) points out,

In general, discourse analyses do not relate to a single document or a small number of individual documents of the same type; rather, they bring together a larger corpus of documents. The most important access is provided by all kinds of 'natural' documents in linguistic form, from pamphlets to newspaper articles, parliamentary speeches, legal texts, advertisements, advisory literature, internet texts, recordings of interviews, and expert reports. (Keller, 2013, p.94).

The next question is: Even if a broad reading and collecting of data across areas is necessary, it is not practical to expand the scope unlimitedly. Where should the research start to build a manageable corpus of texts? Foucault (1991) vaguely suggests that we start with “the places with the most abundant materials to map the discourse, choose the spots which possess the densest and most complex field of positivity, and sites that are easier to grasp intuitively the relationship between the discursive mutation and a certain number of events” (Foucault, 1991, p.65-66). Phillips and Hardy (2002) offer more practical guidelines in terms of data selection. They think that while selecting the data for analysis, the difficulty for discourse analysis is “how to identify a manageable, relatively limited corpus of texts that is helpful in exploring the construction of the object of analysis” (Phillips and Hardy, 2002, p.72) and suggest that “researchers can try to capture ‘important’ texts, for example, those that are widely distributed, that are associated with changes in

practices, or that were produced in reaction to a particular event” (Phillips and Hardy, 2002, p.73), pointing out that government documents are a good place to start. Arribas-Ayllon and Walkerdine (2017) also say that Foucaultian Discourse Analysis is commonly performed on policy documents, parliamentary debates, press releases, and official reports on matters relating to governmental processes, and it usually “attends to expert discourses found among intellectual texts including official publications and empirical findings” (Arribas-Ayllon and Walkerdine, 2017, p.115). Triantafillou (2012) suggests mapping “the references made in the government documents to expert or scientific forms of knowledge in the process of articulating governmental problems, the mode of reasoning, objects and techniques of government” (Triantafillou, 2012, p.33). If such references are not available, analysts would have to rely on their knowledge of “the forms of knowledge in which this kind of problematization was formulated with authority and subsequently cited and circulated within and beyond academia” (Triantafillou, 2012, p.34). This is especially relevant to a discourse analysis of food education in Taiwan, as unlike nutrition education, the formation of food education is relatively young and has not deposited systematic, scientific forms of knowledge.

As to the criteria for selecting sample texts, Arribas-Ayllon and Walkerdine (2017) propose the methodological guidelines for conducting a Foucauldian discourse analysis, suggesting that when selecting a corpus of statements, the criteria might include:

- 1. samples of text that construct a social problem, i.e. how are objects problematized?*
 - 2. samples of text that show how an object is described or explained, i.e. how are objects constructed?*
 - 3. descriptions of practices that illustrate how an object is acted upon, i.e. how are objects regulated?*
 - 4. samples of text that show historical variability in the construction of objects i.e. how are objects and their problems discussed across different historical periods? i.e. how and why do statements change over time?*
- (Arribas-Ayllon and Walkerdine, 2017, p.118)*

In short, the texts selected should be able to explain the process of problematization, describe the formation of the object, and illustrate the discursive practice. Based on these criteria, this research examines three types of texts - bills and government documents, news articles, lesson plans and local food education projects- to understand the problematization of food education, how its objects are produced and described, and how the practices address the issue. In the draft of Food Education Basic Law, for instance, we can see the question to be addressed and an ideal food system and real food described, as well as the regulations and practices: The actual cultivating, cooking, and tasting activities. The data collection was mainly conducted online, for most of the documents this research needs are available on the websites of central and local governments or NGOs, as well as online media and forums. A provisional scope of important themes is derived from a preliminary review of policy documents and news articles, while new themes would be added if found relevant. A back-and-forth review is applied to consolidate and verify the connections between these themes to define the field in which food education discourse operates. In the following sections, I will explain the approaches for the collection of each type of data.

3.2 Bills and Policy Documents

The researcher collected four proposals of the Food Education Basic Law and related policy documents for the analysis of the process of problematization. While discussing the ways in which Michel Foucault's work on power and government may be applied to the analysis of new forms of governing of the life, labour, and learning, Triantafillou (2012) suggests that

on the basis of government documents on policy proposals, reforms, policy implementation and evaluation, laws and regulations, official descriptions of administrative procedures, we may be able to map the problems that are regarded as in need of political interventions, the mode of reasoning about these problems, the objects of government... as all policy documents articulate the problems they believe should be addressed, the goals that the interventions should accomplish and the mechanisms implemented to meet such goals (Triantafillou, 2012, p.33).

Though the governing of life or power relations is not the focus of this study, policy documents are still a great source to understand the problems raised, the interventions or measures adopted, and the mode of reasoning behind them. The bills and policy documents on food education are collected to understand the problematization and construction of objects in food education discourse, with a specific focus on the comparison with nutrition education. As food education is newly emerged, it provides a great opportunity to closely track the development and relevant events. Following the example of Japan's Basic Law on Shokuiku (Food Education) adopted in 2005, the Legislative Yuan has been pushing for a Food Education Basic Law. In 2012, the Legislative Yuan held a public hearing to discuss the draft of the Food Education Basic Law, aiming to incorporate resources and provide an overall structure. Though the bill is still in the drafting stage, two local governments have legislated their food education acts. In 2014, the Ilan government drafted "Ilan Self-Government Ordinances of Healthy Diet", requiring every elementary and junior high school in Ilan to establish a school farm and include food education lessons in the curriculum. In 2018, the Taichung City Government passed "Taichung Self-Government Ordinances of Agri-food Education", aiming to integrate agriculture into the curriculum and promote food safety education by experiencing activities and participation. The bill highlights the importance of eating local, and seasonal and understanding the stories behind food. 4 proposals for the Food Education Basic Law were analyzed:

1. 8th Congress of the Legislative Yuan, 7th Session, 16th meeting (June 2015)
2. 8th Congress of the Legislative Yuan, 8th Session, 3rd meeting (September 2015)
3. 9th Congress of the Legislative Yuan, 1st Session, 3rd meeting (March 2016)
4. 9th Congress of the Legislative Yuan, 1st Session, 5th meeting (March 2016)

The related documents and meeting minutes of these 4 meetings are also collected from the Legislative Yuan website. The 2015 and 2016 versions of related documents explain the bill's purpose and philosophy and can be studied further, but the meeting minutes only mention briefly in the announcement section the proposer's name and the committee to send to, therefore it is excluded from the corpus. The

legislators' discussion about Food Education Basic Law mostly appeared in other situations, for instance, the public hearing in 2012, which is not required by the Legislative Process and only held to collect opinions from the public and relevant groups, and 2 forums in 2015; all related presentations or documents of which are also collected from the forums' sites.

Similarly, a more fundamental and comprehensive bill to promote nutrition education had been under discussion for decades. The proposals and discussions of the National Nutrition Act started much earlier than the Food Education Basic Law. After the legislation of the Dietitian Act, the Nutrition Society of Taiwan drafted the National Nutrition Act for complement (Chiang Shun-Nan, 2012), as "the Dietitian Act is the body, and the National Nutrition Act is the four wheels" (Liu Hui-Ming, 2014, p.227). First proposed in 1982, the National Nutrition Act covers the major aspects of nutrition policy, including the Nutrition and Health Survey in Taiwan (NAHSIT), nutrition and dietary guides, and nutrition education. Since then, there have been seven versions of the bill sent to the Legislative Yuan, but the bill had been laid in the Legislative Yuan and made no material progress. Despite the unsuccessful attempts of legislation, the proposals provide a valuable source to examine the structure of nutrition education and the broader context.

The Health Promotion Administration (HPA) conducted three counseling meetings and a consensus workshop in 2014 and consensus meetings of the central government with nutrition professionals, civic group members and city and county representatives to discuss and revise the Act. In 2015, in an effort to combat the rising number of illnesses related to poor diet and to promote healthy eating, HPA Director Chiou Shu-ti said HPA brought up the discussion of the National Nutrition Act again. The bill aims to limit the consumption of junk food by promoting healthy diets and encouraging institutions, companies, and schools to limit the sale of unhealthy food and develop better eating habits. After several versions of the proposal, the Director-General of Health Promotion Administration reactivated the discussion of this bill and sent the draft into the Legislative Yuan again in March 2017. The 1982, 1998, 2012, 2013, 2015, and 2017 proposals are examined to elaborate the various objects under the regulation of the nutrition paradigm. The study also discusses the problematization and discursive practices of nutrition

education by reviewing laws concerning education and the regulations governing it (such as the School Health Act, the Act Governing Food Safety and Sanitation, and the Dietitians Act), as well as national dietary guidelines and the Ministry of Health and Welfare's food database.

The analysis of nutrition is used for comparison with potential food education discourses to recognize their unique formations, which is particularly important with the confusion between nutrition education and food education that could be observed in the general texts and existing studies. As Foucault (1991) argues, a discourse can only be defined in relation to other discourses, and in this sense, discourse analysis always involves some degree of comparison. Since the discussion of food education in Taiwan often involves nutritional knowledge, nutritional education was naturally the first topic chosen for this comparison.

However, as shown in the previous chapter, there is already a wealth of results from the existing studies of nutrition discourse (albeit might not necessarily be categorized as discourse analysis), and therefore the analysis of nutrition education does not need to be carried out from scratch and can be built on existing research to simplify the collection and analysis of data. It should be noted that the analysis of food education discourse is exploratory, and its discursive foundation can only be confirmed gradually through careful mapping. Contrarily, nutrition is a relatively mature research topic with existing studies that can be used as a guide to directly pinpoint the parts that need to be analyzed in depth, and thus the length of its analysis in this study is reduced accordingly.

After examining the problematization of food education in Taiwan and the formation of its discursive object and subject position through the data collected by the researcher, this study used the existing studies on nutrition discourse to identify the differences and collected relevant data for analysis in a focused manner, rather than systematically exploring the foundation of the formation of both food education and nutrition education in Taiwan, and then making a comparison to identify the differences between the two. Therefore, rather than conducting a comparative analysis of both themes and giving them equal weight, this study considers nutrition

discourse as a subordinate theme, and the focus of the analysis is ultimately on the formation of the food education discourse. The analysis of nutrition education is a necessary complement to better characterize the discursive formation of food education as well as the broader policy arena that is under the name of food education. This strategic comparison focuses only on certain key aspects of the nutrition discourse, but this may serve as a starting point for more comprehensive comparisons in the future.

3.3 News and Magazine Articles

To grasp the whole picture of the formation of food education discourse, identifying what questions are asked and objects produced, a broad reading of news reports is required. An initial search for the keywords “food education” (食育) and “agri-food education” (食農教育) is carried out in Google News to precisely locate all the relevant articles. Though food education covers a broader scope that also includes agri-food education, most of the local governments and food education programs prefer the more specific “agri-food education”. Therefore, when setting up the keywords, both are defined to not miss any relevant texts.

Besides, “real food” (真食物) (the translations of real food and authentic food are the same in Chinese) is set to explore the initial question raised during the food safety scandals that led to the promotion of food education. To include the texts that only refer to real food in a negative way, “fake food” (假食物) is added to the search string. In some situations, the discussion of the realness is limited to a specific food product without mentioning food as a general object. For instance, the article may claim that rice noodles are no longer authentic, for most of them are now made with cornstarch but not rice flour, and real ones should contain 95% rice. As it is not possible to predefine the keywords for every food product, the relevant discussions will be searched and collected individually once observed.

After viewing the previous news and media discussions, an email alert is set to notify any new results for the keywords listed above, and the Really Simple Syndication of

major food education organizations' blogs, websites, and Facebook pages are subscribed as a supplemental mechanism for searching for issues that might be missed. The search is limited to only Taiwanese websites in traditional Chinese. The reason to exclude the simplified Chinese websites is to avoid duplicate results, for some of the Taiwanese websites also provide the simplified Chinese versions. To narrow down the scope, the online discussion and news reports after 2010 will be focused upon, for food education has mostly been discussed since then. It's also the time the government and NGOs begin to promote it as a solution to food safety issues in Taiwan. As the number of results after 2010 is still overwhelming, the scope is further limited to the four major newspapers in Taiwan - Chinatimes, Liberty Times, United Daily News, and Apple Daily. Besides the search for news articles, the following sites with central concerns with public health, food issues, or agriculture development will be monitored closely, for example, News & Market and 100 Baskets. Lastly, two major magazines that focus on health issues and education respectively - Common Health and Parenting Bimonthly - are searched for articles on real food and food education to include data that might not be accessible through the search engine Google.

3.4 Lesson plans and Local Projects

Second, to examine the practices that illustrate how the discursive object is acted upon and the conceptions practiced physically, food education textbooks and lesson plans are collected and analyzed. As Andersen (2003) points out,

It is crucial that the reading also includes the statements of the institutions, statements that demonstrate practice. Unravelling the history of madness includes readings of philosophical works as well as scientific dissertations and the statements, regulations and accounts of the institutions themselves (Andersen, 2003, p.13).

Lesson plans and local food education projects provide a great resource to examine the statements that demonstrate practices of food education. This study analyzed lesson plans from local government-published textbooks and manuals, as well as lesson plans from two sharing platforms. Firstly, the governments of Taipei, Tainan,

and Kaohsiung all published their own food education textbooks. In 2013, the Taipei City Government published the Agri-Food Education Handbook (Chang, 2013), which includes 7 lesson plans for teachers' reference. The Tainan City Government published 5 textbooks themed with Tainan's local foods, including fruits, oysters, water chestnuts, rice, coffee, and beef, and held the School Food Education Lesson Plan Contest that gave awards to 30 lesson plans. Kaohsiung Education Bureau also held a contest and shared the 9 winning lesson plans with schools and NGOs and published 3 volumes of food education textbooks that introduce 12 local foods in detail, including green soybeans, bananas, red beans, guavas, tomatoes, taros, pineapples, White Jade radishes, lychees, milkfish, Aiyu jelly, and jujube.

School textbooks, manuals, and two online resources—the Council of Agriculture's food and agriculture education platform (<https://fae.coa.gov.tw/index.php>) and the Education Market (<https://market.cloud.edu.tw/>)—are used to retrieve lesson plans concerning the discussions of real and fake foods. The Food and Agriculture Education Platform, built in 2018 by the Agriculture and Food Agency (which has launched several agri-food education programs since 2013), provides lesson plans and teaching resources concerning food and agriculture education that are disseminated by the council and its affiliated organizations. The platform offers 127 such lesson plans that span the categories of agricultural production and safety, agriculture and environment, food and health, food consumption and life, dietary habits, and dietary culture. Not all of the lesson plans are reviewed in this study but only those related to real and fake foods, which are the focus of the study, are retrieved. Relevant lesson plans are then examined lest those whose titles do not clearly indicate their contents are removed from the analysis. Afterwards, similar lesson plans are obtained from another platform, the Education Market, which was built by the Ministry of Education (MOE). The Education Market provides access to digital teaching resources offered by education departments, the MOE's affiliated organizations, and private-sector organizations from all 22 counties and cities across Taiwan. The Education Market displays search results without sorting them by subject matter; thus, the researcher performs queries using the keywords "real and fake foods," "additive," and "food education" and reviews each of the resources returned by this online platform to yield as much relevant data as possible. In total,

15 lesson plans are selected from the food and agriculture education platform and the Education Market.

As for the examination of local food education projects, Ilan and Taipei are prioritized, for these two places develop their food education projects the most actively and are most likely to provide sufficient data for analysis. Ilan is the first county in Taiwan to try to integrate local communities to promote food education since 2010. In 2014, the Ilan government drafted the ‘Ilan Self-Government Ordinances of Healthy Diet’, requiring every elementary and junior high school in Ilan to establish a school farm and include food education lessons in the curriculum. This local version of the food education law was passed in May 2015. In these five years, there is already a local network of food education projects established between schools, communities, NGOs, universities, and agricultural groups, providing a large amount of materials for analysis. Since 2013, the Department of Economic Development (DEDT) of the Taipei City Government has been establishing a platform for food education, training seeded teachers, editing the Taipei Agri-food Education Handbook, and supporting the cooperation between organic farms and local elementary schools to develop their food education classes. With the support of the new mayor Ko, the promotion of food education in Taipei has been accelerated since 2014. The Department of Education of the Taipei City Government is planning to initiate the “Little Farmers” project, building food education gardens in 300 elementary schools in 3 years. Under the “Garden City” policy, the unused public space is also going to be transformed into community gardens for civil groups to plant vegetables and herbs.

As for how lesson plans concerning nutrition education are collected in this study, the researcher gathers textbooks designed for elementary and junior high school students because nutrition education has a limited presence in the high-school curriculum and existing lesson plans concerning food education are mostly tailored to these students. Lessons in food and nutrition that are included in health and physical education textbooks at the elementary and junior-high levels are normally taught to students of the 2nd, 4th, 7th, and 8th grades in the first semester. Meanwhile, the data analysis performed in this study takes into account the history of textbooks published in Taiwan. The textbooks had been authorized by the MOE to

be compiled and printed by the National Institute for Compilation and Translation (NICT) since 1968. In 1992, textbooks at the elementary and junior high levels began to be accredited on an annual basis by the MOE. From 1996 onwards, private publishers have been allowed to produce elementary school textbooks for main subject matters, and with the NICT having withdrawn from the textbook market six years later, no universal versions of textbooks have since been published. Moreover, the researcher finds no significant differences between three health education textbooks circulated at elementary and junior high schools nationwide—published respectively by Kang Hsuan Educational Publishing Group, Nani Book Enterprise Co., Ltd, and Hanlin Publishing Company—and thus uses Kang Hsuan’s version for data analysis.

3.5 Theoretically Sampled Texts

The policy documents, news articles, and lesson plans collected provide a foundation for this research to preliminarily explore the discursive field of food education, but since it is not possible to define the discursive formation or identify the discursive connections beforehand, extra rounds of data collection might be needed when unexpected themes present themselves during the initial review of data. The references of the statement and the references of the references might lead to unexpectedly relevant concepts, events, and practices. As Keller points out, building the corpus already directs itself to the ideas of theoretical sampling (Keller, 2013, p.97). Meyer (2001) also thinks that the data collection for Critical Discourse Analysis (CDA) is similar to Ground Theory; the sampling of texts is based on the emergence of concepts, which then becomes the basis for subsequent sampling. The sample is built as the concepts or themes emerge moving from exploration to deepening to verification (Patton, 2015, p.438). Therefore, the theoretical sampling becomes more selective as the emerging concepts focus on further inquiries. This selective sampling also applies to FDA. The researcher begins with an initial corpus of data chosen for its obvious relevance to the research problem, and lets the data lead the investigation to the next document to be read. During the process, analysis occurs simultaneously with the identification and collection of the data (Merriam and Tisdell, 2016).

... data collection is not considered to be a specific phase that must be completed before analysis begins: after the first collection exercise it is a matter of carrying out the first analyses, finding indicators for particular concepts, expanding concepts into categories and, on the basis of these results, collecting further data (theoretical sampling). In this mode of procedure, data collection is never completely excluded, and new questions always arise which can only be dealt with if new data are collected or earlier data are re-examined (Meyer, 2001, pp.23-24).

This research adopts the inductive theoretical sampling approach (Strauss & Corbin, 1998) when reviewing the initial set of data collected for any emergence of concepts or practices shared by different parties, which then became the basis for subsequent sampling to add to the illustration of the discursive formation of food education. To be specific, the themes that emerged during the initial reading of data are the notions of “original taste” and “honesty,” both are tightly connected to the identification of “real food.” After reviewing the policy documents and news articles that discuss the distinction between real and fake food, the idea that the original taste of real food is at risk with the comprehensive use of flavorings constantly appears. After confirming the importance of this theme, “original taste” was set as another keyword to search, and a mapping of the connections of this notion was conducted. While looking for the notion of “real food” and the subject position it forms, another theme was brought to my attention: honesty. It refers to both real food as honest food and the requirement for the subject to be honest. Additional three issues of the magazine Move on with Honest Food (誠食款款行) and one book titled Honest Food published by Lee Zen, as well as articles that associate honesty with the realness of food were added to the corpus for the analysis of “honesty.”

It should be noted that this study does not attempt to define these keywords used to search and collect data, as this is not a linguistic study that aims to find out the semantic elements that are most agreed upon. Rather, I see these words and concepts as tools that are being used and try to describe their circulation and connections formed. However, when analyzing the data, in order to ensure the consistency of the Chinese-English translations, the same translation will be used for

each specific term. First of all, the words "真" and "假" in "真假食物" are translated as "real" and "fake" respectively.

When real and fake foods are discussed, "fake" is regarded as the opposite of "real", a counterfeit or an imitation of the genuine that is produced to deceive the eater; "real food" is often used to refer to natural food that is not artificial or an imitation with all the genuine characteristics and qualities. In the data, the most key concept used to define "real food" is "原味", which could be translated as "original taste" or "original flavor", where "original" is used to refer to the purity and authenticity of the flavor or taste or the fact that the flavor of the food does not come from artificial additives. The context in which these concepts are used and how they are connected will be discussed in the following chapters.

This approach of inductive theoretical sampling might be criticized as “trawling a set of transcripts for quotes to illustrate preconceived ideas” (Potter, 1998, p.127), but the purpose of collecting these data is to analyze in depth how the identified concepts are used, and the validity of the selected texts should be judged by whether they reveal a particular problematization in conjunction with other texts. In other words, the criterion is whether my analysis of the notions of “original taste” and “honesty” points to a whole body of relationships with specific rules that allow for the production of particular statements and practices, and that the different elements of that discourse can be illustratively connected by this deliberate selection of concepts. What cuts through these scattered data, the various individuals and groups is neither agreement in position (though it may appear so) nor a mere convergence of interests, but a rational basis for the discursive relationships.

Table 1: sources of data in the thesis

Bills and Policy Documents	Proposals of the Food and Agricultural Education Act	Ch.4 The problematization of Taste
	Local governments' Self-Government Ordinances of Agri-food Education	Ch.4 The problematization of Taste

	Legislative Yuan meeting minutes	Ch.4 The problematization of Taste
	Proposals of National Nutrition Act	Ch.6 The Nutrition Discourse
	The Dietitians Act	Ch.6 The Nutrition Discourse
	The School Health Act	Ch.6 The Nutrition Discourse
	The Act Governing Food Safety and Sanitation	Ch.6 The Nutrition Discourse
	National Dietary Guidelines	Ch.6 The Nutrition Discourse
Teaching materials	Food education textbooks	Ch.4 The problematization of Taste
	Food education lesson plans	Ch.4 The problematization of Taste
	Health education textbooks at the elementary and junior-high levels	Ch.6 The Nutrition Discourse
Local food education projects	The Parent-Child Market project	Ch.5 The Craftsmanship of Real Food
	The Traditional Market School course	Ch.5 The Craftsmanship of Real Food
	The Market School project	Ch.5 The Craftsmanship of Real Food
	The U-mkt project	Ch.5 The Craftsmanship of Real Food
	The Market Elementary School project	Ch.5 The Craftsmanship of Real Food
News and publications	keywords search: food education, real food, fake food, original taste, honest food	All chapters

Chapter 4 The Problematization of Taste

After a series of food safety scandals in Taiwan, experts warned that Taiwan's food problem can only be addressed by food education that teaches the public about real food and called for legislation of food education. This complex of food safety, real food, and food education, however, does not form an integrated whole, or at least the connections are not self-evident. Instead of improving the regulation system by proposing more rigorous testing procedures, developing new technologies for the screening of illegal additives, or increasing the scope and frequency of examination of food items on the shelves, it is food education that is proposed to address the food safety issues.

A possible explanation is that the government attempts to promote an ideology that is characterized by the emphasis on the need to take personal responsibility for one's own health, rather than address the structural conditions that create this unregulated market. As Turner (1992), Dean (1999) and Petersen and Lupton (1996) argue, public health policies tend to emphasize the neoliberal notions of personal responsibility and leave the burden of preventing diseases and staying healthy on individuals' ability to adhere to dietary guidelines or other instructions. Crawford (1980) describes this ideology as "healthism", a well-established feature of modern society that results from the rise of neoliberalism, where health is deemed the responsibility of individuals, who are considered as health consumers.

But such an explanation seems to suggest a secret scheme or an underlying ideology that manipulates the public's awareness by the government or the privileged class in a centralized, top-down fashion. The proposal for food education, however, is initiated not by the government or the industries but by local NGOs and universities. While the proposal of the nationwide food education law stagnates, local governments and civil groups in Taiwan have launched the policies and projects on their own without the command from the central government. Besides, this argument does not explain how food education can be used to address food safety issues. How does food education translate food safety into a problem it can address? With what particular mechanism? This is not determined by ideology or individual

intention, but rather made possible with the relationships allowed to be established between existing concepts, metaphors, and knowledge systems, and can only be built on a foundation of rationality. This research considers the government's investment in food education schemes to be a response to the development of food education that fits its interest, but not an intentional action to promote a certain ideology or interest.

To answer the question, this chapter first examines the discussions of real and fake food and relevant control measures, pointing to two separate directions of problematization. Firstly, the identification of real and fake food as a market issue that sees fake as an inferior product disrupting the market order, which is accordingly addressed with the establishment of a food identity system. The second approach is to see fake food as a problem of connoisseurship, where fake is deemed the reproduction of an original work of art, the real food, in which the distinction between original taste and artificial taste is used to determine the authenticity. What lays the foundation for the development of food education is the subjective sensory experience rather than objective scientific examinations. A common but inadequate argument is to see this as another form of natural/artificial opposition, but as I have tried to argue here, real and fake food are not opposites but close approximations that are difficult to distinguish. The problematization of taste is divided into two interrelated aspects, the loss of the original taste of food and the numbness of the tongue. To understand the first aspect, I apply Baudrillard's (1990; 1994) concept of "hyperreal" to interpret the relationship between real and fake foods and argue that fake food is deemed an imitation and replacement of the original taste, i.e., natural food. The original taste is seen as not standardizable, delicate and fragile, varying with factors such as climate and environment, while the artificial reproduction is, in contrast, stable and persistent.

As for the second aspect, the reproductions of tastes, such as flavorings and MSG, are deemed to pollute and numb the sense of taste, causing chronic disease through the increasing intake of unhealthy foods. Here, unlike in medicine where taste disorders are seen as a symptom of disease rather than a cause, taste is deemed a direct target for correction and treatment. To this end, training is required to develop or restore the acuity to recognize the subtle gaps between the absent original taste

and its imitation. It is argued that recognizing the original taste is the core of food education discourse. No matter how successfully the artificial flavorings resemble the original ones, there are always subtle differences between them that can be noticed by one's palate if it is properly trained. After examining the wider context, this chapter further focuses on the real and fake food lesson plans to illustrate how the problematization of taste leads to the comparative tasting of real and fake food, the forms adopted, and the assumptions used in the curriculum. Firstly, as it requires a validation process to reveal the difference between the real and the imitation, many of the lesson plans take an experimental approach to expose the hidden existence of the imitation. For example, artificial juice is prepared and tasted in the classroom for comparison with natural juice. In defining real and fake food, the true/false taste of food is considered to be traceable to its source and persistent in the final product. In other words, there is a vertical continuity of true and false taste, while the horizontal, cross-category nature of the original/artificial taste makes it possible to compare and contrast different types of food. In her ethnographic study of industrial and culinary flavor expertise, Ulloa (2019) says that "flavor has become an object of knowledge through the convergence of various expert fields, such as gastronomy, industrial food production, and science" (Ulloa, 2019, p.188), and now we might add food education to the list.

4.1 Fake as Market Disruption/Fake as Simulation

The discussion on fake food has increased in the wake of the food safety incidents. The first thing reviewed was the existing food safety laws for the penalties against fake food. Here, the problematization of fake food occurred at the market level. It should be mentioned that this is not to say that the discussions of the Act Governing Food Safety and Sanitation do not incorporate the aim of protecting health, but according to Chiou (2018), fraudulent food is seen as an economic fraud.

Food adulteration is addition, abstraction, or substitution of any substance in food or other food processing methods that cause consumer's misconception about its quality, value, or function, which actually deviates negatively from what is reasonably expected in a food transaction. Interpreting the crime against adulteration as such to be a means to protect health interests misunderstands

the original purpose of regulating and punishing adulteration. Rather, adulteration is a special type of unfair competition. Market orders should be the only interest that is protected by the crime against adulteration.
(Chiou Wen-Tsong, 2018)

Be that an adulteration from mixing, removal, substituting or processing of actual food ingredients of a lower quality, value or utility than that expected in the transaction, such behavior aims to mislead consumers to generate unlawful profits for the producer, therefore violating consumers' rights rather than their health. As a result, some legal scholars have argued that the objective of regulation should be more to maintain the order of market transactions that it may disrupt and to avoid misidentification of low-value food products in the circumstances of information disparity. In short, real food in the context of the Act Governing Food Safety and Sanitation is first and foremost a question of the quality of the goods.

However, as there is no clear definition of fake food in practice, there is a proposal to introduce the US system and establish standards of food identity. An operational definition of common food products, their ingredients and processes would provide clarity and standardization on the names of food products and their ingredients so that they can be identified as counterfeit or not. In the US, food standards of identity originated in the 1930s "to promote honesty and fair dealing for the benefit of consumers and to curb the practices of an economic nature" (Frohlich, 2012). The Food and Drug Administration has so far established 300 standards in 20 categories of food. The basic strategy was to use the product's common name as its chief identifier, and then impose an "imitation" label on substandard products. Here, the idea that real is original and fake is the imitation emerges, but in an economic sense. According to the regulation, any food that is similar to or meant to be a substitute for an identified food item must be labeled as an imitation product if it doesn't meet the standard of identity (the Federal Food, Drug and Cosmetic Act). Fake foods are economically adulterated, misrepresented and deemed inferior by the authorities, as "they posed the threat of economic harm to an unsuspecting consumer" (Padberg and Kaufman, 1994, p.159).

A standard of identity should specify in detail the description, methods of analysis,

nomenclature, and the specific functional ingredients that were permitted to be added to it, as well as the minimum levels of valuable constituents and the manufacturing process. Foods labeled according to a standard of identity must meet the characteristics of the food as specified in the regulation. This system implies an ideal: a graspable objective nature of food that is clear to anyone, a definite correspondence between the text and nature. In Taiwan, even though standards of food identity have not been realized, the Principles of General Food Labeling (Shi, Z.Y., 2014) clearly share this quest for the nature of certain foods. First, it requires that the labeled name of the content must reflect the true nature of the content. For food products named after the ingredients they contain, the names shall be acceptable to the public so as not to cause misunderstanding. For example, "beef jerky" should contain beef, and "abalone" must contain actual abalone, not just abalone seasoning or extracts (DNA of abalone cannot be detected by testing). Here, food is regulated through its biochemical profile. The nature of a food with a certain name can be examined by instruments to identify the quality. Butter, for example, must contain 80% fat, below which it can only be labeled as milk fat; chocolate must contain 18% cocoa butter, otherwise, it must be labeled as cocoa sugar. The value of a specific ingredient becomes the basis for measurement and calibration.

In this semantic field to be surveyed, a category of food is made up of common names and their near-synonyms, and labelling regulations try to define the nature to which these words need to correspond and assess the value or quality of a product to determine if it is being misbranded. Yet the name is not the real objective of this system. By measuring and calibrating the name and the corresponding nature, the aim is to determine the positions of similar foods in the trading system, that is, the price. Rather than requiring the food to be true to its name, it foremostly demands that the price be true to its value. The name and other information are the yardstick that determines the reasonable range of prices. As Featherstone (2015) claims,

Today's food standards exist almost solely for economic reason... The rationale for a statement of ingredients on the label is partly economic, so that the consumer will understand what he is getting... Nutritional information is on the label, partly for economic reasons, to show the value of the food, and

partly for health reasons (Featherstone, 2015, p.25).

In short, these are the reference points for the value of the product. Standards of identity help reassure consumers that those products are reliably uniform and consistent in value (Padberg and Kaufman, 1994, p.164), which are the essential foundations of market order: exchange on an equal basis and fair competition. Consumers pay a value-for-money price in exchange for the food in question, knowing that other products similarly identified were comparable in ingredients. A common or generic name ensures a degree of equivalence between competing food products and a level playing field among competitors. In the case of butter, for example, the former means that butter is not available at the price of milk fat, while the latter means that low-priced milk fat products cannot pretend to be butter and sold at a higher price.

Real/fake is, therefore, an assessment of the degree of deviation of the price from established market benchmarks, or the unidirectional difference between the traded price and the biochemically measurable value of each food product. There is a proper correspondence assumed between the price and value for food to be called “real”, while fake food means low-quality product crossing the line that defines the adequate price for its value. On the contrary, a high-value product at a low price is not considered fake (hence it is unidirectional). Ideally, the prices of food should not be too far away from its average value to be “real”. This approach of problematization is based on an institutional network where reasonable quality standards are set by authorities to regulate the market.

Food education, despite sharing general principles with the Act Governing Food Safety and Sanitation, is not a regulatory system based on an established design but an organic development of knowledge networks, in which food is not for trade but an object of appreciation, with the aim of educating and cultivating taste to promote public health. Though food education also adopts the principle that real is what properly corresponds to its very nature, the correspondence is not accessed between the price and the biochemical value but the taste and the ingredients. Its nature is not identified by the food’s chemical structure or the nutritional composition which we can’t perceive, but by the taste of it, and not through instruments but the

tongue. In the data analyzed, “fake” is determined when the taste of food has nothing to do with the ingredient after which it is named. For instance, the healthcare journalist Chung criticizes the fake foods, arguing that

You don't need to extract the flavors from the real ingredients, because any taste and color can be produced in chemical ways... juice drinks in the market may contain nothing from the fruit but only are produced with artificial flavorings and colorants (Chung, 2016).

In a news conference held by the legislator Wang, Yu-Min and NGO John Tung Foundation, Wang criticized the food companies for the misleading labeling, arguing that many juice drinks on the market contain little or no fruit juice and are produced with artificial flavorings and additives (Sun W.L., 2012). Hsu Hui-yu, the commissioner of the Department of Food and Nutrition, John Tung Foundation, added that though these fake zero-fruit juice drinks are made with chemical additives, they taste even better than fresh juice (Sun W.L., 2012). In a report of food additives and flavorings, it is argued that consumers not merely are incapable of telling the taste of natural juices from that of fruitless drinks but consider the real juices as spoiled and the artificial flavored ones fresh (Chen, 2014).

This discussion of fake food can be further understood with Baudrillard's concept of simulation, which “is the generation by models of a real without origin or reality: a hyperreal” (Baudrillard, 1994: 1). He breaks the sign-order into four stages:

1. It is the reflection of a basic reality
2. It masks and perverts a basic reality
3. It masks the absence of a basic reality
4. It bears no relation to any reality but is its own pure simulacrum

Though Baudrillard (1990; 1994) uses this concept to explain how the emergence of the television frees cultural representations from an independent external reality, there were points of similarity between the examples of food and television, or to be more specific, between taste-food material and television representation-real events. It should be noted though that the application of Baudrillard's concept of hyperreality here is used to understand the relations between real food and fake food, but it does

not suggest accepting his general theoretical framework and assumptions.

Artificial flavors don't necessarily mimic naturally existing flavors and can create flavors that do not exist, however, artificial flavors, for the most part, refer to and try to reproduce the naturally existing flavors (Ulloa, 2018, p.71). Hence this concept still helps us understand the discussion on real and fake food.

Applying the four-stage framework to the discussion on fake food, we can say that

1. The taste/ flavor is the reflection of a basic food ingredient
2. It masks and perverts a food ingredient
3. It masks the absence of a food ingredient
4. It bears no relation to any food ingredient but is its own pure simulacrum

Real foods are defined as those with tastes/flavors that are the proper reflection of the food ingredients they contain, which is in stage 1, and fake food in stage 3 or 4. Real foods are defined as those with tastes/flavors that are the proper reflection of the food ingredients they contain, which is in the first stage. The third and fourth stages refer to fake food, thanks to the technologies of identifying and reproducing the flavors on a large scale. In the 19th century, after the capture and reproduction of images became possible, the technique of reproducing flavors was realized a century later, using flavoring substances to simulate or resemble the effect of the original flavor. As Ulloa (2018) says, "flavor chemistry developed first with an interest in understanding the makeup of volatile compounds that impart aroma to foods in order to imitate their effects" (Ulloa, 2018, p.68). Techniques such as flavor profile analysis facilitated the conceptualization of smells and flavors as composed of multiple components that could be broken down into their constituent molecular parts (Spackman, 2018, p.54). After identifying the natural flavor ingredients, the flavorist replicates them by using chemicals whose odor and flavor are close to the natural flavor to be imitated and creates "a virtual reality of smell and taste" (Classen, Howes, and Synnott, 1994, p.198). This way, the flavor molecules in the original blend are identified individually and, just like film editing, edited to represent the reality that is the original taste. With the application of a gas liquid chromatographer which charts the individual constituents of a particular flavor, the components of a flavor can be accurately identified and reproduced (Classen, Howes, and Synnott,

1994, p.198). Since then, flavorists have been capable of recreating “the whole spectrum of food flavors, from fruits and vegetables to meats” (Classen, Howes, and Synnott, 1994, p.197).

For the modern flavoring industry, basic reality isn't necessary anymore. Flavor chemistry shifts and masks a food ingredient, and sometimes produces the flavor of a food product without using any ingredient from that specific food, which illustrates the second and third stages of Baudrillard's (1990) simulation.

In the past, essences were indicative of the intrinsic worth of the substances from which they emanated. Indeed, to encounter a scent was to encounter proof of a material presence, a trail of existence which could be traced to its source. Today's synthetic scents, however, are evocative of things which are not there, of presences which are absent... These artificial odours are a sign without a referent, smoke without fire, pure olfactory image. (Classen, Howes, and Synnott, 1994, p.205)

In the end, it is more real than reality.

While most artificial flavors are based on natural products, by emphasizing certain flavor notes and downplaying others to reproduce those essential to a flavor's characteristic taste and smell, flavorists are able to produce heightened, fuller, and more palatable flavors than the natural, making a real orange taste sour and bland, like a poor imitation of an artificial orange flavor (Classen, Howes, and Synnott, 1994, p.198).

The question of real/fake food was already discussed before. Homemakers United Foundation (HUF), an NGO promoting the 'Green Food Education' project in Taiwan, makes a very clear explanation: “Real” means the food product is produced with the actual food material, and “fake” means the taste and flavor is synthesized by chemicals and additives (Tu and Huang, 2016). For the processed foods, the tastes are alienated and no longer the reflection of the ingredients, and the unlimited multiplication of tastes without reference to the actual food ingredients raises concerns.

When drinking flavored and colorful fruit juices from the glasses, have you ever wondered whether they are real or fake? While having tasteful strawberry waffles and orange jelly, do you know what exactly you take in? Take strawberry cream cookies for example, though there's "strawberry" in its name, there might be no strawberry inside at all. The cream may look pink as the color of strawberries, and even pinker than the real ones; it may smell like real strawberries with even richer aroma (Liu C.W., 2014, p.6).

As Classen, Howes, and Synnott (1994, p.203) suggest, the postmodern era we live in is a time "of imitations and simulations, where copies predominate over originals and images over substance". They further argue that

The widespread replacement of natural flavors with artificial imitations which we find in the contemporary food industry exemplifies how, in Jean Baudrillard's words, the world has come to be 'completely catalogued and analyzed and then artificially revived as though real'. Artificial flavors are created by the synthetic reproduction of individual flavor notes present in the original natural flavors (Classen, Howes, and Synnott, 1994, p.204).

Regulations are enforced to address such issues. On May 28, 2010, the Taiwan Food and Drug Administration (TFDA) published a regulation on labeling of instant noodles, and on July 20, 2015, on labeling of freshly made beverages in chain convenience stores and fast-food stores (TFDA, 2010; 2015). The Food Safety and Sanitation Act Chapter V, "Food Labeling and Advertising" Article 22, requires that the food product names must be unmistakable. All packaged instant noodles that include only seasonings or condiments should be noted on the outer packaging as "Flavored Noodles." For example, "Beef Noodles" should be labeled as "Beef Flavored Noodles". Instant noodles that include both seasoning condiments and actual ingredients should be noted on the packaging "xx Noodles," e.g., "Beef Noodles" or "Seafood Noodles." The same rule applies to tea and juice. If a tea drink is made from tea flavor instead of tea leaf, it should be labeled "xx flavor" or "xx taste". Fruit beverage is allowed to be labeled "xx juice" under the condition that the fruit juice content is above 10%, and those containing no fruit juice should be only

labeled “xx flavor” or “xx taste”.

In this regulation, the relation between the taste and the ingredients of food products is problematized as an issue to be clarified. Without the label, eaters may mistake the taste of flavorings as the taste of actual ingredients, and by making the distinction between condiments and ingredients, it unmasks the absence of the very food ingredient and indicates the non-relation and simulation, but the absent reality is still not present consequently; it is simply indicated. This then leads to another question: In the practical sense, how to distinguish the original flavor, since the label can only tell us that the real thing is not there? What is the difference between the original and the simulation?

A commonly used principle is that it is less attractive compared to the artificial taste. Contrary to the hyperreal tastes, flavors, and colors of processed foods, actual foods are considered tasteless and unappealing. The founder of the Orange Market, an organic health mart in Taiwan, points out that

Natural food is less tasty and beautiful and easily spoils. This is common sense. Natural vegetables and fruits get rotten in a few days... real food has its proper status and look. It cannot be preserved long, not that tasty, and spoils easily (Zhu, 2013).

The idea that real food is featured with the lack of taste is quite common, for example, “foods with no additives taste different from what we are used to. The original taste of real food is surely plain and less appetizing” (Zhang, 2016), and the author of *From Appetite to Food Education* also thinks that “natural vegetables, fruits, and the real foods with no sugar or flavoring agent are tasteless” (Qiu, 2015, p.37).

By its definition, original means being present or existing from the beginning, first or earliest, but it is difficult in practice to decide when can be legitimately considered as the beginning, first or earliest. Instead of looking for the time when the taste is unaltered, it is easier to identify the opposite of the altered taste, that is, blandness. In his work *Salt, Sugar, Fat: How the Food Giants Hooked Us*, New York Times

journalist Michael Moss (2013) argues that the food and drink companies hire scientists to manipulate the three key ingredients, salt, sugar and fat, to optimize taste and create addictive food products. The dietitian Tan (2014) claims that

On the one hand, foods that are too delicious are all problematic. Only after tasting and knowing the original tastes and flavors of food do I realize that in foods too aromatic, sweet, or salty, flavorings are overused... there's even a possibility that toxic ingredients are added in it that may harm your health (Tan, 2014).

Tastelessness could only be the result of natural formation, as artificiality must entice the consumer. Since attractive and tasteful foods are deliberately engineered to hook the eaters, tastelessness in some degree eliminates the possibility of manipulation and guarantees the purity and noninvolvement of producers.

However, there are also arguments claiming that processed food is in fact tasteless.

When I first tried these [processed] foods, I was surprised and confused by the fact that they are so tasteless... Under the layers and layers of flavorings, the original tastes are absent... all of these [original] tastes are thin and even fade and disappear, leaving only an unpleasant aftertaste in my mouth and my body that I couldn't get rid of. And I suddenly understood that it is the additives that break, damage, replace, and fake the original tastes these foods are supposed to have (Ye, 2014).

The food writer Ye's (2014) comments suggest that processed foods are tasteless despite all the flavorings added. The idea that flavorings have no flavor seems to be a contradiction, but such contradiction can be resolved by the problematization of the sense of taste: Tastelessness is in fact the result of a degradation of the sense of taste, which points to the need for long-term investment in correction and consequently the promotion of food education.

4.2 The Problematization of the Sense of Taste

The question of original tastes of real foods are interpreted as the numbness of the sense of taste, and the reason people consider real foods as tasteless is because they don't have the ability required to appreciate the original tastes. This ability is deemed long lost in modern times; fast foods and processed foods dominate the market, and most people eat food products in which the ingredients are not recognizable, and the real tastes have been forgotten (Qiu, 2015).

People eat out all the time and consume those foods with lots of additives; the original tastes of real foods can no longer be tasted... Most people's tongues have been numbed by colorants, flavorings, and sweeteners, and real foods with no additives are thought to be tasteless (Huang, 2016).

The loss of the taste is deemed inevitable in the time of the food industry, as people are alienated from the land, not knowing where food comes from, and highly processed foods with additives destroy children's sense of taste and appetite for real foods (Qiu, 2015).

The same idea is expressed in various places, for instance:

Our taste is developed by experiencing food. If we've consumed food products with chemical ingredients for a long time, we'll memorize the tastes of these chemicals but not those of foods, and our sense of taste will degenerate, and sensitivity will decrease. In the end, we may no longer be able to appreciate the tastes of natural foods. That's the reason we want to promote a real food diet... and provide the original tastes of natural and real foods (Leezen, 2016).

90% of the Taipei population has already lost the sensitivity for the taste of food; the unhealthy diets are gradually numbing our intrinsic ability to taste food. It is an age of taste degeneration... more condiments are added to make food products more appetizing... the ability to taste enables us to appreciate the real tastes and brings health back... it's time to enjoy the real foods and reject the lure of fake foods (EverydayHealth, 2014).

Growing up eating natural foods has sharpened one's taste buds... many teenagers come to dinner and wonder why they don't taste it. One of the biggest differences is... heavy uses of oil, salt and additives made this generation used to heavy flavors. Therefore, giving children real food at a young age will affect their diet for the rest of their lives (Wang Yun-Ling, 2013, p.139).

The impaired taste or taste degeneration is identified as a critical issue to be addressed. Different from medicine, which first considers the impaired taste as a symptom of other diseases. Causes of impaired taste range from the common cold to more serious medical conditions involving the central nervous system (Shi, 2014). Treating the underlying condition that causes the impaired sense of taste can help restore your taste. Bacterial sinusitis, salivary glands, and throat infections can be treated with antibiotics. Symptoms of colds, flu, and allergic rhinitis that impact taste may be relieved with decongestants or antihistamines (Shi, 2014). In this case, the treatment is targeted at the sickness that causes impaired taste but not the sense of taste itself, for it is considered as the result of sickness. In the discourse of real food, however, impaired taste is caused by the improper correspondence between taste and food, and the incapacity to notice the absent basic reality, which then causes various illnesses. Here, the impaired taste itself is the cause of disease that should be treated:

The consumers' senses of taste are deceived, and diseases of civilization come to us one by one... To find the real original taste of food back and keep our tongues from being deceived by fake foods full of additives, we must understand the nature of food (Chen Shu-Ting, 2017, p.5).

The changes in diet and lifestyle in modern societies underlie diseases of civilization, including coronary heart disease, hypertension, type 2 diabetes, and especially obesity (Liu, 2011). With the conception of impaired taste being the cause of disease, it is, therefore, reasonable to develop a therapy to train the sense of taste for people to understand the nature of food and fight against obesity. In 2011, Jen-Ai Hospital proposed the idea of Taste Quotient (TQ) and opened the Taste Quotient Training Center in Taichung, Taiwan. TQ is defined as “the ability and intelligence to

taste, or the ability and intelligence that can be trained or improved by tasting” (Liu, 2011). The Taste Quotient Training Center claims that by evaluating, testing, and training the sense of taste, it successfully helps obese patients lose weight and improve other diet-related illnesses. The TQ Training Center provides courses to train the ability to identify tastes, memorize, communicate, learn, balance, and control, to help patients develop better diet habits. It thinks that the TQ training improves patients’ sense of taste, allowing them to better enjoy food and easier to feel satisfied, therefore lowering their intake of calories.

From the training of taste, TQ promotes a more comprehensive understanding of food, and this principle is also adopted by the discourse of real food and food education.

The actual participation in the production of food and experiencing the process to grow them help with the understanding of what food should look and taste like. Once you know the natural looks and the original tastes of foods, you’ll know why we should have more foods but not food products, because the tastes are more real, simple, and pure (Chen, 2014).

Hence, the practices involved in food education are more than simply tasting. To understand the realness of food, its variation and commonality, it is necessary to include all aspects of food experience. Mini Cook, a children’s cookery studio, thinks that “through the preparation and cooking, children get to touch the real foods and have the real tastes of food... food education is not to teach a skill but an ability to interact with food” (Mini Cook, n.d.). New Taipei City’s 2016 food education proposal also mentions that “it should activate students’ ability to observe, smell, hear, touch... to experience the original look and taste of food” (New Taipei City Government, 2015, p.17). By the same token, Food Education Basic Law defines food education as “a learning-by-doing process for students to know the local agriculture and right diet by interacting with food, animals, plants, nature, farmers, and relevant actors” (Legislative Yuan, 2015, p.1).

Different from the idea that the sense of taste is an ability to train and develop, there is another theory considering the sense of taste an instinct to be reset and restored;

going back instead of going forward; and to use natural, unadulterated foods to bring the taste buds back to the beginning and distinguish the true taste of food (Yang Re-Chen and Chen Shu-Ting, 2018, p.148). Zhu (2011) thinks it is necessary to first reset people's sense of taste to the original status that hasn't been affected by processed food. She considers organic foods as the representative of real foods, which could recover the ability to know the natural tastes of foods: "Organic vegetables and fruits... may have their natural harsh tastes and are not as delicious as the conventional ones... less sweet and colorful, but it is a tool to reset your sense of taste for you to rediscover the original tastes of foods" (Zhu, 2011).

Chang Wei-chi, the first Taiwanese professor that promotes the importance of food education, also says that it's important to distinguish food and food products, in order to revive the taste buds. She has organized an agricultural food education camp to teach children about "food make-up artists," which refers to the artificial flavorings that cover the tasteless nature of processed food, and to taste the difference between real and fake food. She thinks that food technology constantly stimulates people's taste buds, even to the point of addiction and loss of judgement, so to avoid the dangers of food safety, it is imperative that we "revive" our sense of taste (Chang Cui-Fen, 2014).

The ideas of "revive" and "train" the sense of taste are conceptually contradictory, as the theory of resetting taste may lead to abstinence. Abstinence from the delicious fake foods and reset yourself with the tasteless real foods. It is not surprising that fasting is considered an effective way to understand the original tastes of foods.

After a period of time for the students to fast, the teacher prepared a potful of soup with seasonal and fresh vegetables... After tens of hours of fasting, the simple soup tasted unprecedentedly savory and delicate. She never ate with such wonderful relish even before losing her sense of taste... Only after a series of food safety scandals can people learn about the importance of "the original tastes of real foods", and only by savoring the simplest foods can we taste the most real flavor of them (Wu, 2014).

Though Wu (2014) only uses this story to emphasize the importance of real food to

address food safety issues, we can still see the idea that fasting and a simple diet help restore the damaged sense of taste and enable people to appreciate real foods. You don't need to experience foods as much as possible to understand the original tastes. On the contrary, it is done by rejecting any exposure to food. In short, "fasting lets you have the real tastes of foods, and only by abstaining from food can you really know what the real taste is" (Fasting to Appreciate the Original Tastes of Foods, n.d.). To roughly conclude, the training of taste demands more experience of food to learn how to control the appetite:

Most people don't know the real taste of food... if they can't identify the source of the real taste, it may result in the overconsumption of fake foods... the only way to understand the real taste is to "widen the experience of taste" (Wang, 2015).

The resetting of taste, on the contrary, asks for fasting and abstinence; the former sees the sense of taste as an ability that can be developed, and the latter considers it as an instinct that is regressed and needs to be restored.

[People in the modern societies] have lost their sense of taste and prefer heavily seasoned foods and the strong smells of chemical flavorings... [To improve it] you must first fast and empty the stomach to reset the digestive system...and reboot your body... after cleaning your digestive system, your sense of taste will become keener... your body will then know what is necessary to it and what is not. (Wang, 2016, pp.28-35) ◦

Mango Social Enterprise (2016), established by the dietitian Lin, claims that intermittent fasting with fruit drinks helps readjust the sense of taste, as well as the way our bodies experience the original taste of food. Its website says that

... the Pure Fruit Drinks product for you to rest your stomach and intestines, helping you to 1. "Reset" - readjust your appetite and reduce reliance on addictive ingredients, such as sugar, flavorings, and caffeine; 2. "Refresh" - heal your sense of taste and let you rediscover the original tastes and flavors of food;

3. *“Rejuvenate” – rebuilt a healthy stomach and intestines to strengthen the immune system (Mango Social Enterprise, 2016).*

The difference between the two theories is not significant when fake food dominates the dietary environment. In both cases, the sense of taste is seen as a way of approaching the truth of food. Here, food education stands in contrast to other more developed sciences. For example, in his analysis of nutrition, Scrinis (2013) talks about the inability of taste to distinguish ingredients: “Another way in which our sense of taste may let us down is in failing to detect the many other “hidden” ingredients in highly processed foods, including the hidden oils, fats, modified starches, and sugars” (Scrinis, 2013, p.435). Nutrition science shares the same view about the unreliable nature of senses and relies on scientific tests to provide the truth. In contrast, the food education discourse emphasizes that the tongue is the most reliable source of knowledge about food. Through my analysis of food education lesson plans, I attempt to show how this tasting can be centered around original taste.

4.3 The Manifestation of Fake

One of the main questions raised by food education discourse is how to find the invisible fakes. As mentioned in the previous analysis, fake is not opposed to but approximates to real. The difference between real and its simulacrum does not appear directly, hence what we see or taste is merely a series of indistinguishable “real” food. The “Witch’s secret recipe” lesson plan (Children Agri-food Education Team, 2013a, p.2) explains that it is because the flavorings are diluted and blended with other additives, so the pungent smell or taste is weakened, making it more difficult to link ingredients to food items. How to illustrate the gap between the real and the fake becomes a key point in the design of food education programmes. To trace the artificiality, several lesson plans adopt an experimental approach, recreating the food processing to root the appetizing flavors to the repulsive additives. Just like gastronomy’s emphasis on the origin of food, food education strives to uncover the source of artificial colors, flavors, and tastes by recreating the procedure of applying additives. The Find Out Where the Colors Come From lesson

plan aims to “let students understand the original tastes of foods, and avoid the risks of chemical additives”:

Discover the Orange Soda

- 1. Open the bottle of orange soda. Let students smell the flavor and guess if there's orange juice in it*
- 2. Peel oranges and let students smell, observe, and compare oranges and soda drinks*
- 3. Ask students to guess again if there's orange juice in the soda drinks*
- 4. Present the chemical additives of artificial juice drinks. Let students smell the flavorings, make one glass of orange soda on site, and ask students to smell and observe it again (Lin, 2013, p.2).*

Ask students to collect the packages of cookies, candies, and breads and analyze the lists of ingredients on them, so the student will know that: 1. Look carefully at the ingredients of most of the cookies on the market, there are no natural ingredients listed for the flavors they claim to have, and these flavors mostly come from the artificial flavoring agents (Lin, 2013, p.4)

Many other lesson plans have used the same model to demonstrate the differences that are not hidden yet before the simulation. For example, in three lesson plans - Drink Water to Your Health (多喝水沒事，沒事多喝水) (Li Zong-Yuan, 2016), Beware of the Poisoned Apple (Huang Jian-Ke, 2018), and Dangerous Food (食分危險) (Chen Hui-Zhen, 2018) - teachers would mix up orange soda, papaya milk, taro milk, apple and lemon juice with artificial colouring and flavorings. The aim is to show the irrelevance of the taste of the drink to the ingredients, therefore making the gap between the taste and the ingredients visible. One may say that it is to point out the rootlessness of the simulacrum.

To unmask the absence of the real food ingredient and indicate that the orange flavor comes from the flavoring, students are asked to compare the orange with the soda drink. The “Food Additives” lesson plan is more developed, and clearly states

that food products with artificial additives are “fake” (Food Education Lesson Plan Editing Team, 2013b, p.41).

Experimental activities

1. Teacher introduce the ingredients

a. all kinds of food additives

b. Let students smell the flavors and taste some of them

(Food Education Lesson Plan Editing Team, 2013b, p.33)

Activity 1

1. Smell the flavorings. Compare the tastes of fruit flavored candies and real fruits

2. Take steps such as smell the grape flavoring, taste the grape flavored candies, and eat a grape

3. Students compare the differences among the three

...

Students might feel that the grape flavoring tastes more like the candies and less like grapes.

Activity 2: Making strawberry milk

...

What does the strawberry flavoring taste like? Is it pungent? Does it smell good?...

7. Think

a. Why does the drink taste like strawberry when there is no strawberry inside?

...

Activity 3: Making soda drinks

1. Introduce the ingredients (water, citric acid, flavoring agents, fructose, baking soda)

2. Observe (students taste and smell the baking soda and citric acid)

3. Teacher asks questions (What does the baking soda/citric acid smell and taste like? Is it pungent? Does it smell good?)

...

5. Taste the self-made soda drink

a. Let students drink the self-made soda drink and compare it with those sold on the market

...

c. The taste of the self-made soda drink is still different from those sold on the market, whose additives are commercially confidential... Lead students' discussion about the fact that we eat a lot of additives we don't know (Food Education Lesson Plan Editing Team, 2013b, p.34-36)

Students are asked to taste, observe, and make the drink for comparison, but the purpose is not to identify the compounds and further their knowledge of the flavorings, but simply to acknowledge the existence of the additives that cannot be known in the fake foods. The “The Secrets of Bubble Milk Tea” lesson plan asks students to perform a play about the hidden ingredients in bubble milk tea:

Mother: Why is bubble milk tea bad?

Rou: Because our teacher said that there are lots of secrets we don't know in bubble milk tea.

Mother: Really? What are the secrets?

Rou: First of all, there is no milk but only creamer in bubble milk tea.

...

Rou: Mum, there are so many secrets in bubble milk tea. And not just the milk tea, even the bubbles have secrets... Some beverage stores add harmful chemical ingredients to make bubbles chewier... There are too many secrets in bubble milk tea that we don't know. (Children Agri-food Education Team, 2013c, pp.5-6)

In the “Expose the Additives” lesson plan, teachers are told to guide students and let them know that those with a long list of incomprehensible ingredients are made with chemical additives that can be harmful to your health (Chang, 2014, p.4). What the above lesson plans have in common is that they all point out the unawareness of additives. More precisely, it is not so much a lack of research and analysis of additives as a lack of recognition of the legitimacy of knowledge on additives by food education. Food education discourse does not aim to explore the subtleties of flavorings or the art of blending. It is, however, not necessarily the case for other

domains. For instance, molecular gastronomy treats it as an ingredient that can be used in the same way as cooking real food: “Food additives are imported by molecular gastronomists into high-end restaurants, which ennobles the artificial flavorings from ingredients in junk food to luxury cuisine” (Roosth, 2013, p.10). Flavouring is another discourse that treats additives as legitimate objects of knowledge. Seeing the taste of additives as an object to study, it constitutes a field that differs from food education with its own rights to the truth and realness (see Ulloa, 2019). What’s the taste that corresponds to a certain compound? How to mix certain compounds to simulate or improve the natural taste? These questions of flavor chemistry and molecular gastronomy don’t appear in food education, but it doesn’t mean they are any less legitimate.

The most common reason food education discourse disqualifies the knowledge of flavorings is that they come from sources other than food and are therefore inedible. One text from Kaohsiung City’s textbook implies that ingredients one doesn’t recognize and look like chemicals for the chemical class are all inedible (Tsai and Liu, 2017, p.75). The inedibility of artificial additives is also illustrated in “The Witch’s Secret Recipe” lesson plan.

Picture storybook: The Witch’s Secret Recipe. The witch Mila tries to save the trouble of making juice in the traditional way and blends flavorings and colorings to make artificial juice, but the villagers have too much of the artificial drink and all get sick.

Activity

- 1. Teacher ask: Why does Mila’s juice make the villagers sick? (if the children are unable to answer, repeat the plot where Mila makes “fake” juice with flavorings, colorings, and sugar)*
- 2. Ask children: Are flavorings and colorings edible?*
- 3. Use a cotton swab to pick up the flavoring and let children smell it (unlike natural flavorings, the artificial flavorings smell pungent, as they are highly concentrated). Ask children: Do the flavorings smell edible? (Children Agri-food Education Team, 2013a, p.2)*

The "Food Safety Examined, Artificial Additives Out" lesson plan (Lin, 2013) further explains why artificial additives are inedible.

Activity

2. Ask students to collect the packages of cookies, candies, or breads, and analyze the labeling for them to understand:

a. Most of the cookies are labeled "XX flavored", but there are no such natural ingredients listed, and usually only the artificial flavoring agents are added.

3. Artificial flavorings and colorings are extracted and refined from petrochemicals. As we know, the smell at the gas station is not pleasant and can even make people dizzy. Since gasoline is inedible and toxic, are the products extracted from it edible?

...

3. Teachers buy organic unflavored steamed buns and share them with the students; let them taste the differences between additive-free foods and those with artificial additives (Lin, 2013, p.4).

Evaluation

When I mentioned that the artificial additives are extracted from petrochemicals... I added that "eating these chemical additives is just like putting the fuel truck nozzle in your mouth and drinking gasoline"... though the steamed buns are not delicacies, they are pure and additive free (Lin, 2013, p.7).

In the class, students do not compare the artificial flavorings to the simulated original taste, but simply confirm the absence of the original food ingredients by reading the label. Here, it is not the gap between the real and the fake that needs to be understood, but the mismatch between the flavor and the name. The ingredient list is used as a benchmark to correct taste, or rather, as a basis for pointing out misperceptions on the tongue. The ingredient list assumes one's taste to be untrained, error-prone and blind, and that taste must be calibrated based on the reliable information on the food label. However, the lesson plan also indicates that the inedibility of fake and artificial foods can only be tasted by the tongue, as the additives are produced with materials deemed safe under the Act Governing Food Safety and Sanitation and widely used in food products. In short, we could say that

the lesson plan uses food labels to calibrate students' tongues, which might seem to undermine the reliability of the sense of taste, but it also emphasizes the Irreplaceable role the tongue plays in identifying the vital difference between real and fake foods, the edible and inedible. It should be noted that the boundaries between edible and inedible are different in food education and food safety, as the latter manages the boundaries by the acceptable risk level and permissible dose of additives, but these indicators are not adopted in food education discourse to determine whether a food item is real or fake. Even if an additive is deemed legal and safe under the tolerable consumption level, the inedibility of the source material is not indicated clearly and can only be captured by the nose and tongue. It is this break from the food safety regulations that defines the field for food education to intervene and operate.

4.4 Tasting the Real/ Fake

In order to distinguish between original flavors and inedible chemical reproductions, training the tongue to taste the real thing has become an important theme in food education lesson plans. The "Say No to Sugary Drinks" asks the instructor to summarize how to learn to appreciate the natural sweetness in food, and it emphasizes that taste can be trained when referring to what can be counted as the "real taste." The lesson plan suggests that beverage shops take the initiative to reduce the amount of sugar added and maintain the original taste of food, developing customers' taste buds and bringing back more customers who want the real thing (Lin Ding-Jun, 2018, p.2). In multiple lesson plans, this training is carried out with the comparison of traditional or natural food items with artificial or chemical ones.

The "Distinguish Between the Real and Fake Soy Sauces" lesson plan aims to educate students' ability to tell the differences between traditional soy sauces and artificial/chemical ones (Huang, 2014). Students are provided with "real and fake soy sauces" (Huang, 2014, p.2) and asked to taste both of them and then fill out the following table (Huang, 2014, p.6):

	Traditional	Chemical
Main ingredients		
Color		
Taste		
Appearance when shaken		
Price		

The comparison here is different from the food writer Hsu's (2008) soy sauce tasting. Hsu applies the techniques of wine tasting and olive oil tasting to soy sauce to identify the color, flavor, taste, texture, origins, places of production, and years of production, but this lesson plan only distinguishes the real from the fake, the traditional from the chemical, as for it all the soy sauces that are brewed with the traditional or chemical way share certain characteristics in common. The differences between traditional soy sauces and the subtleties of chemically brewed products do not seem to be addressed here.

The real/fake distinction is widely applied in other lesson plans. For instance, the "Expose the Additives" lesson plan aims to "teach the children how to distinguish real food and choose good food: Lower the consumption of processed food products and have more natural food" (Chang, 2014, p.2), as processed food is seen as fake and non-original. For this purpose, it designs an activity for the students to taste and compare several sets of food items, each including one sample with additives and one additive-free.

Each set of snacks should be the same kind of food product (e.g., candies, crisps, etc.)... and have two items, one with artificial additives and one without.

For example:

1. Popsicles: An ice lolly colored with artificial colorings sold in supermarkets vs. an IceSpring ice pop

2. *Chocolates: M&M's vs. I-MEI chocolates*

3. *Crisps: Pringles vs. Homemakers Union Consumers Co-op chips*

...

6. *Drinks: Coke vs. BIOES pure juice (Chang, 2014, p.3)*

Both the “Distinguish Between the Real and Fake Soy Sauces” and “Expose the Additives” lesson plans presume the identity shared by the same kind of food products, implying that the same food items originally have similar tastes, and the artificial reproduction can be identified by the comparison with an original, average, and additive free food product. In theory, this kind of comparison should be carried out among the same type of products, for instance, The “Tastes Differ Greatly” lesson plan specifically demands the same kind of food items to be used for comparison (e.g., organic pineapples versus conventional ones) (Food Education Lesson Plan Editing Team, 2013a, p.53). But on the list above, the comparison of the last pair of items is not made between juice drinks with and without additives but between two drinks with different tastes. Such a comparison raises the following question: As the two beverages do not share the same identity and taste, what is the basis that makes the comparison possible? In the following analysis of lesson plans, I would like to argue that such comparison is not based on the identities or natures of food items themselves but the categories they belong to, in this case, the real or the fake.

In lesson plans that compare real and fake food, we can see two hypotheses: the flavor of real or fake food has both a vertical succession and a horizontal extension. Firstly, the authenticity /falsity of food can be traced back to the source and continue to the final product. In the aforementioned “Food Safety Examined, Artificial Additives Out” lesson plan (Lin, 2013), the fake flavor of additives is derived from its source, petroleum. On the premise of a flavor association between raw materials and products, cross-level comparisons become possible. The AFA’s “Real Tasties? Fake Foods!” (Chen, 2014, pp.4-5) lesson plan implies this characteristic of real food’s taste, the continuity, asking students to taste the natural grape juice, grape flavored juice drinks and fresh grapes, and note what they smell, see, and taste. Rather than simply comparing the authenticity and artificiality within the category of juice, this lesson plan includes the original ingredient as a point of reference for comparing

natural and artificial juices. This method of triangulation uses the continuity of original flavor in natural juice and grapes to more accurately compare the difference in flavor with the simulacrum.

Just like controlling the variables in experiments, a common ground is necessary to compare the real and the fake. Here it is the overlap among the three flavors that makes it possible to define the differences, i.e., the "flavor of the grape." However, this is not necessary for food education discourse. As we can see, even without any similarity in the ingredient or flavor as the common ground, it's still possible to compare. Based on that, I want to point out the second hypothesis in the comparison of real and fake, that even between different types of real foods, such as natural fruits or vegetables, there exists the commonly shared and recognizable taste, the flavor of "Real." The horizontal commonality ensures the effectiveness of comparison. Similarly, fake foods that simulate different flavors also share one common flavor, the flavor of "Fake," although the latter seems likely to find a more plausible explanation, namely that they are made from petrochemicals.

When comparing horizontally, the type of taste is no longer a control variable, for example, the "I Love, Crave, and Want Real Food" (Yang, Yuan & Chou, 2014) lesson plan asks students to distinguish foods from food products:

Abstract

... these food products are often low in nutrients, and their processing is difficult to review, therefore food safety scandals happen one after another in recent years... we should teach children how to distinguish foods from food products and appreciate the local and seasonal foods, so they can keep nutritious and safe diets (Yang, Yuan & Chou, 2014, p.1).

Strategy

2. Tell the differences between foods and food products

To lecture, illustrate the process of making coke, and let students classify and taste the food items (Yang, Yuan & Chou, 2014, p.2)

Activities

1. Distinguish Foods from Food Products

...

2. Make Coke

- a. Ask students to observe the food additives brought by the teacher*
- b. Teacher make coke with the additives and explain that the soda drinks are produced with chemical ingredients*
- c. Students drink and taste the coke*

...

3. Introduce and Taste

- a. Teacher introduce the local foods in Kaohsiung*
- b. Teacher introduce the seasonal foods in Kaohsiung*
- c. Students taste the local, seasonal, and fresh foods (boiled eggs, boiled corn... apples)*
- d. Students share their feelings after tasting these foods and explain how foods taste differently from “food products”*

(Yang, Yuan & Chou, 2014, pp.5-6)

Different from the “Distinguish Between the Real and Fake Soy Sauces” or “Expose the Additives” lesson plans, here, the features of a certain food item are ignored, and the comparison is made not between two food items of the same kind but between the two categories, real/fake or food/food product, while each food item is seen only as the representative of its own side. Hence, the comparison does not need to be made between natural and artificial juice drinks or between potatoes and chips; Coke as a representative of the fake and artificial can be compared with corn or natural apple juice, as for the tasting of the real food, the most significant difference regarding the taste derives from the boundaries between real and fake.

Such comparison is unimaginable for gastronomy, as Coke has nothing in common with eggs or apples in terms of taste or texture. The comparison can only make sense when they are deemed representatives on a more general level, in this case, the real and fake. In this sense, artificial apple juice drinks are more similar to Coke than to natural apple juice drinks, as both are artificially flavored, and the specific characteristics of the food items to be compared do not affect the validity of the comparison. It seems that there are universal characteristics that can be identified

even in different fake/real food products, no matter what kinds of food items they are, or which specific additives are added to them, and such universal nature of food resides in its taste and smell.

4.5 The Fragile Taste of the Real

The other point to be noted is the variability of the taste. Sometimes, the taste of real food is considered stronger than that of fake food, and sometimes it is the opposite. A common view is that

In our daily lives, flavorings are everywhere... Scientists use petroleum based chemicals to synthesize the flavorings chemically and artificially... the smells and tastes of such flavorings are stronger and last longer... Be careful if your favorite food products have strong fragrances which remain in your mouth after you finish them (Tsai and Liu, 2017, p.77).

But in some cases, this principle is reversed, claiming that the smell and taste of real food is stronger. A possible explanation is that the applicable principle varies when it comes to different kinds of foods, but it seems more likely that the difference exists mainly as a form for distinction and does not rely on external reference. As discussed above, real and fake foods' tastes are categorized, and the comparison is made between these two categories but not among individual food products. In the following lesson plan "Drink Soy Milk and Keep Healthy More Easily" (Chen, 2013), the contradiction is expressed more clearly.

When comparing [the self-made soy milk and] those sold on the market, we noticed that the homemade soy milk tastes less sweet, but its fragrance and richness are much more... The soy milk made with real ingredients without any flavoring or additives is filling and healthy.

...

The simplest foods have the healthiest, original and delicate flavor... Let kids memorize the original tastes of foods with all their senses, and understand what real foods but not food products mean to us. All foods might have additives during the production to make them more fragrant, delicious, richer, easier to

preserve for a longer period. But these additives are invisible threats to our health; kids should learn the right knowledge as early as possible (Chen, 2013, p.6).

At first, it says that the original flavor is stronger and richer, but immediately afterward, the next paragraph claims the opposite, indicating that those with additives are more fragrant, delicious, and richer.

In this seemingly contradictory statement, the capability to taste might be a possible explanation. As previous analyses have suggested, the back and forth in whether the original taste is strong or weak should be interpreted as a difference in the capability to taste, and therefore the “correct” knowledge needs to be learned early on to avoid treating superficial artificial tastes as intrinsically delicious. That is to say, the capability to taste is the variant, while the original flavor is and has always been in a disadvantaged place that can only be tasted in certain conditions. Discursively, the original flavor is more fragile, restrictive and vulnerable to damage or contamination than replicas. The conception of delicate realness is how food education, in its own way, problematizes food and constructs the discursive field.

The fragility of the original flavor comes not only from the lack of taste relative to artificial flavors (for those whose tongues are numbed by additives), but is also directly damaged by other external factors, such as the use of pesticides, which are thought to contaminate the original taste of natural food, making it more difficult to identify. This might be the reason why organic foods are deemed the iconic real foods, as they bear the original tastes of foods and are theoretically free from (or less exposed to) additives, processing or other toxics. In the “Food Safety Examined, Artificial Additives Out” lesson plan (Lin, 2013), organic steamed buns are mentioned as the representative of real foods, so the students can taste the differences between additive-free foods and industrial food products with additives. “The Colorful Organic Tofu Pudding with Fruits” aims to teach children how to pick healthy organic foods by doing the shopping themselves, so the risks of consuming over processed food products and chemical additives too much could be eliminated (Children Agri-food Education Team, 2013d, p.1). It emphasizes the importance of teaching by

tasting, aiming to let students know the “original tastes of foods” (Children Agri-food Education Team, 2013d, p.2).

With the comparison of organic and non-organic foods, the distinction of real/fake is not only made between natural and artificial foods but also within natural foods. Similarly, the distinction between organic/non-organic is based on the taste.

Comparing vegetables

1. *Teach students to recognize the certification of organic vegetables*
2. *Ask them to identify the organic and non-organic vegetables with actual samples (organic and non-organic sprouts, original and processed daylilies, organic and non-organic enoki mushrooms) and tell if they are processed... (processed daylilies are colorful and acrid, non-processed darker and earthy) (Lin, 2013, p.3).*

The “Tastes Differ Greatly” lesson plan (Food Education Lesson plan Editing Team, 2013a) designs an activity to compare the tastes of organic vegetables and the conventional ones, suggesting that the latter often lose the natural tastes and original fragrances and have a strong smell of pesticide (hence should be considered fake: potentially inedible, lacking the original taste).

- a. *Prepare organic and conventional samples of the same product (e.g. organic v.s. conventional Bok Choy).*
- b. *The vegetables or fruits for comparison should be the same kind (e.g. organic v.s. conventional pineapples).*
- c. *Local and seasonal vegetables or fruits are suggested (see table 1)*

Table 1. Vegetables and fruits that are easier to tell the differences between organic and conventional

<i>Season</i>	<i>Item</i>	<i>Organic</i>	<i>Conventional</i>
<i>Spring</i>	<i>Cabbage</i>	<i>Sweeter & crispy</i>	<i>Not sweet, bad mouthfeel, and acrid</i>
	<i>Spinach</i>	<i>Without the taste of pesticide</i>	<i>Strong taste of pesticide</i>
	<i>Tomato</i>	<i>Has the taste of wild tomatoes</i>	<i>Lack of the taste of wild tomatoes</i>
<i>Summer</i>	<i>Water spinach</i>	<i>Without the taste of pesticide</i>	<i>Strong taste of pesticide</i>
	<i>Cucumber</i>	<i>With bug bites, more curved</i>	<i>Washed with chemical agents after harvest, more acrid</i>
	<i>Pineapple</i>	<i>Does not cause tingling of mouth or tongue</i>	<i>Causes tingling of mouth or tongue</i>
	<i>Mango</i>	<i>Has the fragrance of mangoes</i>	<i>Softer, no fragrance of mangoes</i>
<i>Fall</i>	<i>Papaya</i>	<i>Sweet</i>	<i>Slightly bitter</i>
	<i>Guava</i>	<i>Fragrant</i>	<i>Without fragrance</i>
	<i>Bok Choy</i>	<i>Without the taste of pesticide, sweet</i>	<i>Strong taste of pesticide, strongly acrid</i>
<i>Winter</i>	<i>Bok Choy</i>	<i>Without the taste of pesticide, sweet</i>	<i>Strong taste of pesticide, strongly acrid</i>

2. *Motivating*

- *Ask students to observe the foods*
- *Each kind of food has two samples: organic and conventional*
- *Each group takes turn to observe the foods*
- *Ask each student to smell the samples (might discover the difference due to the pesticide residue)*

3. *Tasting*

- *Students taste the food items in the order instructed by the teacher*
- *After tasting one item, discuss first before tasting the next one to avoid confusing the tastes*
- *Before tasting different food ingredients, gargle and rinse the mouth with clean water (Food Education Lesson Plan Editing Team, 2013a, p.53-54)*

The plan compares the smell of organic food and that of pesticides, claiming that organic vegetables and fruits have their own distinct flavors and tastes that conventional ones lost. For the latter, the smell of pesticide kills its natural flavor and damages the taste. But it is unclear how the “wild taste” or “the smell of pesticide” is defined or identified, as no sample of pesticide is provided in the classroom, and it is not something common in cities (as the lesson plan comes from The Taipei City’s food education handbook). The smell of pesticide is not to be identified during the tasting but presumed beforehand so that any unpleasant sensorial stimulation can be attributed to the use of chemicals. Students need not know the exact smell but find any possible trace of its existence, the tiniest odor or discomforting scent. The two problems faced by original taste, or rather two additives - the artificial flavors and pesticides - point to an industrialized mode of production or the network of relationships formed as a result. The Taipei Food and Nutrition Handbook also highlights the industrialization of agriculture as a major factor in many of the dietary problems of modern society.

It seems to attempt to generalize the arguments and standpoint of food education as “anti-industrialization”. Nevertheless, the viewpoints of food education should not be misunderstood as returning to nature (although the use of the term “original flavor”

could easily cause such association). This study attempts to argue that food education doesn't aim to construct an opposition between nature and artificiality but between handcraft and industrial machinery, or the original and the replicated.

4.6 The Original and the Replicated

This chapter argues that the discursive formation of food education is based on the notion of "real food" as the original work with its own authentic taste that cannot be perfectly reproduced. With this understanding of the real, the formation of specific practices and speaking subjects can then be explained. By analyzing the lesson plans of food education and local food education projects, this research finds that the distinction between real and fake foods is marked by the presence or absence of the original taste. In order to conceal the absence, artificial flavorings that simulate the original taste are added to the "fake" food products, which could be seen as the mechanical reproductions of real foods. I argue that this "original vs. reproduction" interpretation is the key to understanding the relationship between real and fake foods.

A simple dichotomy that sees artificial as "synonymous with the fictitious and the simulated, and consequently the antonym of the genuine and real" (Ulloa, 2018, p.66). Instead of seeing real and fake as two incompatible concepts that would never meet, this research suggests that fake food is the reproduction of real food, and the use of flavorings the attempt to mimic and resemble natural flavors through synthesis, and therefore fake food should not be seen as the antonym of the genuine and real food but more like the homonym, or what Baudrillard (1994) called "simulation" that feigns to have what one doesn't have, that dissimulates the fact that there is nothing real behind. The simulation may further threaten the difference between the real and the fake (Baudrillard, 1994, p.4), as the artificial flavors taste more "real" and "natural" to those whose tongues are numbed.

Unlike a clumsy imitation that may be comedic, a vivid, lifelike imitation creates a sense of threat for blurring the boundaries and categories. By certain scientific standards, an artificial flavoring might be considered cleaner than the naturally produced counterpart, as the materials and the production environment can be

controlled more thoroughly, but this scientifically defined cleanness does not make its way to the public discourse; the artificial flavorings are still seen as a pollution to the tongues and foods, which might be attributed to the fact that fake food blurs and threatens the boundaries. Fake foods are those that attempt to approach and steal authority from the real; an artificial flavoring is fake for occupying the same “natural” name without the ingredient in reality. A completely artificially created flavor without reference to any naturally existing food would not be considered “fake”. For instance, artificial juice drinks are fake, but Coke is not; it is only “bad”, “junk”, or “innutritious”. A taste or flavor that does not violate an established order does not require the distinction between real and fake.

To explore the original-simulation relationship between real and fake foods, this research applies Benjamin’s (2008) discussion on the mechanical reproduction of the work of art as the framework. As Snyder (1983) points out, Benjamin’s essay *The Work of Art in the Age of Its Technological Reproducibility* is “devoted in great part to a discussion of standards — exemplars we employ in determining the kinds of things and sorts of relations that we have a legitimate claim to call “real” (Snyder, 1983, p.130). When Benjamin says that even the most perfect reproduction lacks the “here and now” of the original work of art, which underlies the concept of its authenticity (Benjamin, 2008, p.21), it can be easily applied to my analysis of the distinction between real and fake foods, where even the most perfect artificial flavorings lack the “original taste” of the natural food.

Benjamin argues that in the age of the technological reproducibility of the work of art, the aura of the original artwork withers as the result of proliferating duplications that revoke the distance between the artwork and the audience (Benjamin, 2008, p.22). As the aura, defined as “a strange tissue of space and time: the unique apparition of a distance, however near it may be” (Benjamin, 2008, p.23), is held by the original work that is bound to the work’s presence in the here and now, “there is no facsimile of the aura” (Benjamin, 2008, p.31). By replicating the work, “it substitutes a mass existence for a unique existence” (Benjamin, 2008, p.23). As the technique of reproduction detaches the reproduced object from its history and place, this technical reproducibility leads to the decay of the aura. But a reproduction of a work of art cannot acquire the provenance of the original, of which a central element of the

authority is unachievable by technical reproduction. Benjamin thinks that what makes an artwork real and unreproducible is its unique existence in time and space:

In even the most perfect reproduction, one thing is lacking: the here and now of the work of art - its unique existence in a particular place. It is this unique existence - and nothing else - that bears the mark of the history to which the work has been subject... The here and now of the original underlies the concept of its authenticity (Benjamin, 2008, p.21).

Food education discourse uses similar concepts to define real food, indicating that what can be called “real” should be “local and seasonal”, or in Benjamin’s words, “here and now” which real food’s presence is bound to. There is no facsimile of the realness, because no matter how perfectly a food product simulates the real food, the unique existence of the original that situates in a particular space and has a certain history is irreproducible. We might compare real food to a work of art, and the original taste to the aura. Just like printing is the reproduction of words, recording is the reproduction of sounds, and photography is the reproduction of images, artificial flavorings are the reproduction of the taste and flavor of the original food. The mass production of fake food, or the facsimile of real food, is only possible in the age of technological reproducibility. But even the most perfectly blended flavorings are deemed not capable of simulating the original taste of real food, as the unique existence, the terroir, the people, and the tradition behind food, cannot be reproduced altogether. Though the aura, the authenticity in the experience, and the situation where the subject encounters the object, might not be reproducible, they could be recreated or restored, or at least food education discourse presents such an attempt to restore the aura, recreating the experience and the moment for eaters to encounter food in every possible way, and constructing food as an object of appreciation, a work of art created by the farmer or producer.

It should be noted that I am not trying to argue whether or not food is a legitimate aesthetic object (for discussions about whether gustatory pleasures could be conceived as candidates for higher aesthetic pleasure, see Korsmeyer, 2002), but simply point out the fact that on the discursive level, the analogy between food and the work of art is applicable to the relationship of real/fake food, the statements circulated, and the discursive subject’s position that is unique to food education – the

farmers and producers. The original taste as the opposite of mechanically mass-produced spices doesn't entirely refer to natural flavors but to handicrafts made with care by artisans. In food education discourse, the subject that transfers knowledge about food is not a spokesperson of nature but the producers of handicrafts. It is their skill and craftsmanship that legitimizes the voices of these otherwise unqualified professionals. This can be seen more clearly in the next chapter where I try to explain the subject of discourse in food education.

Chapter 5 The Craftsmanship of Real Food

As Flowers and Swan (2019) argue, with the proliferation and intensification of food pedagogies, there is now a plethora of pedagogues to educate the public about food: policymakers, activists, schools, farmers, celebrity chefs and food writers, health educators, food producers and retailers. This chapter examines the two discursive subject positions of food education in Taiwan, the farmer and the traditional market vendor, and identifies the conditions that legitimize their speaking positions, the knowledge circulated, and the spaces for telling the truth. The analysis does not aim to understand the common experiences or intentions shared by farmers or vendors, but to consider how their speech is made legitimate and what kind of discursive field is formed, where certain knowledge that does not meet the standards of science is deemed valuable and truthful.

First, this chapter analyzes the rise of the farmer as a speaking subject and indicates that the honesty and truthfulness of the subject are essential to the verification of the food's realness. Here honesty does not refer to the individual's intention, ethics, or a moral belief, but a set of principles that guide one's practices and conditions that define the validity of the speech. Besides, with the concept of originality and the notion that food is a craftwork or work of art of the producer, the producer's personal life is seen as the guarantee of the realness of food, and therefore it is not enough to simply know about the food or the craftwork itself; the knowledge of the producer's beliefs, life, the ways one treats oneself and others, and the attitude towards food all become critical to understanding the craftwork.

This chapter then explains the formation of the other subject position that was activated by food education discourse - the market vendor. In several recently launched food education projects, the traditional markets are given more emphasis as a place to learn about food from the vendors, who are deemed in possession of some forgotten or undermined knowledge about food and local dietary culture. It is argued that the association between the marketplace and everyday life allows the vendor to enter the discursive field of food education and speak about food.

Though emerging as the discursive subjects under different conditions, both the farmer and vendor are respected as shokunin (職人), which implies the recognition of their craftsmanship, experiences, skills, and professional knowledges. With the formation of the two subject positions comes the educationalization of the farm and marketplace. It is the discursive connections brought in by food education that make it possible for the sites previously used for production or economic activities to be reconstructed into schools: the classroom in the garden, the educational farm, and the market school.

5.1 The Farmer and the Farm

In food education projects, farmers are often listed as consultants or collaborators responsible for teaching students about food. For example, the Taipei Food Education Handbook suggests that teachers consult farmers in the neighborhood and work with them (Chang, 2013, p.6). In addition, the Food Education Basic Law bill also says practitioners such as farmers should participate, promote, and initiate food education projects. This recent change in farmers' status poses a sharp contrast to the past. An old Taiwanese saying "those who can't study farm" implies that farming does not require much knowledge or expertise. The silence of farmers seems to be a more general phenomenon than an individual local case. By analyzing the history of nutrition science in America, Mudry (2009) argues that the way people understand food is founded almost exclusively on practices of quantification, which makes our knowledge of food non-experiential and standardized, and the authority was shifted from farmer to scientist (Mudry, 2009, p.45). Mudry (2009) quotes the research paper *Rationalization and Reality in the Shaping of American Agricultural Research*, which argues that

Instead of agricultural knowledge creation in the hands of the "hicks, yokels and ignorant bumpkins," whose approach to agriculture relied on intuition and experience, the newfound scientific and quantitative approach put agriculture into terms that were bound, concrete, well defined, comparable, and verifiable (Rosenberg, 1977, p. 403).

A rational and scientific approach to agriculture excludes farmers from the possible position to speak. The application of the scientific and quantified language to the farming routine “served to shift the persona of the agricultural expert from the farmer, who was scientifically illiterate, to the USDA chemists, botanists, and veterinarians” (Mudry, 2009, p.29). In America’s nutrition policy, a discourse of quantification is the dominant voice that excludes other eating practices (Mudry, 2009, p.138). After the examination of the discourse of quantification adopted by the United States Department of Agriculture and its speaking positions preserved exclusively for the experts and professionals, Mudry (2009) tried to explore the alternative discourses of taste that offer the possibility of grounding qualitative knowledge and provide different authoritative grounds to talk about food, claiming that the discourse of quantification cannot address the tastes of food or the experience of eating (Mudry, 2009, p.138). She thinks that “while science and a discourse of quantification encourages and lauds repeatability and standardization, a discourse of taste celebrates the particularities of food” (Mudry, 2009, pp.157-158), and suggests that the farmer could “introduce new ways to describe flavors, tastes, and knowledge to those who may not be as intimately associated with the land” (Mudry, 2009, p.154) that dietitians or scientists could not. The idea Mudry (2009) proposed more than a decade ago seems to come into reality in Taiwan’s landscape of food education: the discussion about the original taste of real food, the urge to know the farmer behind the produce, and the authoritative position for the farmer to teach. In the context of food education, farmers are not seen as ignorant and uneducated hicks but as knowledgeable professionals. This section aims to illustrate the conditions that make this shift possible for the farmer to speak the truth about food.

I would like to argue that the condition of farmers being the subject of food education relies on two definitions of real food: original taste and sincerity. The previous analysis has established the concept that real food is food with its original taste, which constitutes the basis for the problematization of food education.

In defining the real as the original and the fake as a replica, this perception presupposes the presence or absence of an identifiable producer as the criterion of judgment: the fake is made by a machine without a creator while the real is a creative work with a personal touch originating from the producer. In the case of natural vegetables and fruits, farmers are the apparent choice as the subject in the

real food discourse. With this metaphor of craftsmanship, it can be argued that the tasting of real or fake food is discursively akin to the identification of works of art and forgeries, and that agriculture is about the techniques and processes of creation. It is this craftsmanship that guarantees the realness of food that is the work of art by farmers.

The food writer Ye Yi-lan (2015) writes in an article titled *Back to the Original Taste* that farmers are just like pastry chefs, and agriculture is better considered an art. Harvest, an online media outlet specializing in agriculture, also identifies the craft of farming as an art: "The beauty of farming is based on practicality, on the labor performed by the farmer, on continuous training through the seasons, on thinking about the work process... Each field has its problems and the farmer has his solutions" (Chen Yi-Ru, 2015, pp. 4-5). It should be noted that, given the emphasis on practicality and work processes in the description, it might more appropriately be called a craft, but the distinction between art and craft is not the focus of this analysis. This metaphor establishes a comparison between original handcrafted works and machine-made reproductions, and whether or not a work is considered art does not affect the validity of this discourse.

The comparison of agriculture to art and food to the work of art is not uncommon. But there are certain differences between the produce as a piece of work and a dish as a work of culinary art; what distinguishes the discourse of food education and culinary art is the notion of "original taste" that justifies food itself as something worth appreciation. To illustrate how this analogy leads to the discursive formation of the farmer as the one who speaks the truth of food, culinary art and gastronomy will be discussed below for comparison.

For gastronomy, Food that is valued in aesthetic terms is reviewed by the gourmet and the chef who creates the work remains relatively silent. It is a game played between the two parties: One makes food into the work of art as a silent, delicious riddle, so it can be analyzed and solved by the other with his tongue. The chef as the riddle designer does not reveal the secrets to the eater. What ingredients are used? Where are these ingredients from? How is the dish prepared, processed, and cooked? The delicacy and creativity of a dish or meal can only be understood by

someone who has a sharp taste and rich knowledge to find the clues and put them together by oneself. Food education, on the other hand, considers food itself but not the dish as the finished work of art, as what it aims to understand is the original taste, an essence that needs to be preserved and known. Therefore, it is the farmer but not the chef that owns the work. The question to answer is not the chef's cooking skills but the farming techniques of the farmer. It might be fair to say that the notion of food as a work of art contributes to the visibility of farmers.

Farmers therefore need to talk, explaining their passion and vision to claim the status as the creator of the work of art that is food they grow, which distinguishes the real foods from the faceless and rootless fake foods. Along with the "eat local" and "eat seasonal" principles, there is now a third one urging consumers to eat those with identifiable producers. In Johnston and Baumann's (2009) analysis of authentic food, they also point out that the authenticity of the object is assured by the sincerity of the subject, an identifiable individual or group. Besides, Stiles, Altiok and Bell (2010) examine the narratives of food authenticity and argue that the core idea lies in "claims to the distinctive, irreproducible properties of specific places and faces as sources of authenticity" (Stiles, Altiok and Bell, 2010, p.227).

This indicates a discursive trace from food to farmers: the notion that real food as a work of art to be appreciated for its original taste entails the quest for an identifiable creator. Without the problematization of taste, the food itself might receive less attention as something to be appreciated but ingredients used for a dish, which is more likely seen as the object of appreciation created by the culinary artist, the chef. We could say that it is the notion of the original taste that links the claims of authenticity and the subject position together.

5.2 Honesty as Proof of Real

In addition to the concept of original taste, another argument that appears repeatedly in the analyses is that real food is honest food: because machine-made replicas conceal the absence of original taste, it is therefore considered a deception of the tongue, as opposed to the real taste produced by the hands of an honest farmer. The notion of honest farmers in real food discourse shares many similarities with the

concept of craftsmanship in Sennett's (2008) studies. He points out that in the 19th century, machinery production made the authenticity of the product problematic and the craftsman was considered the opposition of the machine, whose work left a personal trace of the maker, a symbol of individuality: "Now, against the rigorous perfection of the machine, the craftsman became an emblem of human individuality, this emblem composed concretely by the positive value placed on variations, flaws, and irregularities in handwork" (Sennett, 2008, p.84).

When it comes to the evaluation of the quality of gold and brick in the 18th century, the most essential element was honesty. Sennett (2008) refers to honesty as a sheer purity of substance. He explains that "honest gold" needs to reach a certain standard of truthfulness, and it had to be pure so that things would look like what they are (Sennett, 2008, p.69). Its nature shall be seen or perceived directly, and it is the same for honest brick, which is brick to which no artificial color has been added to the clay (Sennett, 2008, p.137). This is similar to standards for real food, where additives like flavorings and colourings conceal the nature of food ingredients; real refers to the nature that can be captured directly by trained senses.

Sennett (2008) mentions that "honest" brick in the eighteenth century refers to the composition and to how bricks are used in construction; it describes brickwork in which all the bricks laid come from the same kiln, and "honest" brick evokes a building surface in which the brickwork is exposed rather than covered over: no cosmetics have been applied to its face (Sennett, 2008, p.138). Compared to brick, stucco, which can be used to simulate other materials, is considered a fake material by Isaac Ware, the author of *The Complete Body of Architecture*. Stucco as a flexible material is suitable for simulating many things that it is not: ersatz columns can be poured in stucco, statues, urns, and woodcarvings (Sennett, 2008, p.139). The nature of stucco makes it a "dishonest" material. Bricks, among other modest objects, are threatened by its simulacrum in the industrial era:

It was already evident in the eighteenth century that objects made by machine could be programmed to look traditionally handmade... machines could simulate some of the qualities of "honest brick" cheaply, in immense quantities. (Sennett, 2008, p.142).

With the use of machinery simulation, uniform bricks were produced that betrayed no hint of their local color variations, as the color of raw clay was "corrected" by the addition of mineral dyes before it was further homogenized in steam-driven grinds and molders to mimic the composition of traditional bricks from different locales (Sennett, 2008, p.143). Sennett (2008) then extends his discussion to food, arguing that "the work these metaphors did on bricks can be understood through the attitudes we now harbor about organic food" (Sennett, 2008, p.138), and "industrialized advances in brickmaking have made the differences ever harder to detect. As is true of the industrial factories now that mix, knead, and bake organic bread" (Sennett, 2008, p.143).

Similarly, real food discourse talks about the real and original taste and industrial reproduction. Seeing food (rather than dishes) as craftwork that is created by craftsmen seems to be against common sense, but this angle helps with our understanding of the problematization of food education, as well as its relations with the formation of the object and subject position in a more comprehensive way (though compared with the network of possible discursive formations, it is still local and partial). With the notion of honest food, however, we don't seem to see clearly any specific discursive practices. What can be found is an abstract moral standard. In this section, I attempt to find its foundation and identify how this concept defines the conditions for the subject to speak up.

We may say that the notion of real and honest food serves as a response to the food safety issues in Taiwan. After the food safety scandals, the producer's honesty and truthfulness were raised as an issue to address, as the scandals are attributed to those food companies that produced low-quality food with chemicals to deceive the consumers' tongues; real food is therefore made by honest and sincere producers. This idea that realness is guaranteed by the producer's honesty echoes Baumann and Johnston's (2009) analysis of the discourse of foodies, which argues that realness and authenticity are critical to the understanding of the discourse, and honesty and sincerity are linked tightly to the construction of "real":

To speak of the "real" versions of things is to invoke the concept of authenticity.

“Simple” food is authentic because of the honesty and effortlessness it conveys, a trait that harkens back to the association between authenticity and individual sincerity, or being “true to oneself” (Baumann and Johnston, 2009, p.76).

Baumann and Johnston continue to explain that the honesty of the food derives from its simplicity, and “with the implication being that complexity in this case would be dishonest, a clear violation of the standards of authenticity” (Baumann and Johnston, 2009, p.77). Similarly, in the real food discourse, real food is defined as original and unprocessed, which resembles the idea that authentic food is simple and not complex. The continuously present notion of “honesty” brings up the subjective dimension that contributes to the affirmation of real food. Baumann and Johnston (2009) stress how important the identity and individuality of the producer are to the authenticity of food:

For people who seek authenticity in their lives, the connection between an identifiable producer and a cultural artifact is an essential part of cultural experiences... food is perceived as good and authentic when it is linked to specific creators with honest intentions (Baumann and Johnston, 2009, p.85).

The idea that the authenticity of food is assured by the sincerity and honesty of the subject, an identifiable individual or group, seems to resemble Foucault’s analysis of “parrhesia” (free-spokenness). In the 1983 and 1984 courses given at the Collège de France, Foucault (2010; 2011) examines the meanings and the evolution of the word “parrhesia” and the practices of truth-telling in Greek culture to the beginnings of Christianity. By doing so, Foucault illustrates the use of parrhesia in specific types of relations to self and others entailed by an assertion of truth. Parrhesia is first associated with frankness: A parrhesiastes does not cover up his own beliefs and says only what he believes. As “parrhesia is a kind of verbal activity where the speaker has a specific relation to truth through frankness” (Foucault, 1999, p.5), it relates to the concept of honesty and sincerity directly and provides the necessary framework for examining the relation between the notion of honesty and truth in the real food discourse. My comparison between the notion of “parrhesia” and the principle of honesty attempts to deepen the analysis of the speaking positions, but it does not suggest that the farmer is the new “parrhesiastes” or that Foucault’s analysis can be directly applied to the problematization of real food; such

comparison is simply to be used as a basis for the analysis, and to point out that there is theoretical common ground between the two very different contexts that is worth noting. Though Foucault's (2010; 2011) analysis is based on texts from different historical and cultural backgrounds, the questions he raised are more general and worth asking about the real food discourse: Who can tell the truth? Why is it possible for them to tell the truth? By referring to his work on parrhesia, I would like to examine the specific truth-telling scheme of the real food discourse, arguing that honesty and sincerity (真誠) are what make farmers and producers qualified for truth-telling besides doctors, dietitians, or scientists.

Initially, I attempted to base the analysis of honesty on the collected lesson plans and magazine articles. However, the materials provide only segmented discussions without illuminating much context in detail about how honesty and truthfulness are connected to telling the truth. To better understand what the principle of honesty and sincerity means in the discursive field of real food and the formation of the subject, additional materials are included to provide the necessary background for the connections among the truth-tellers, the notion of honesty and sincerity, and the notion of real food. My analysis as an initial attempt to understand what "honesty" means in the real food discourse examines all of the three issues of the Move On With Honest Food (誠食款款行) magazine and one book titled Honest Food published by Lee Zen, as well as articles that associate honesty with the realness of food. The magazines and the book interview farmers, producers, and restaurants for their stories and philosophies about food, which illustrate how the notion of honesty and sincerity is connected to the identification of real food and the subject that is allowed to tell the truth.

As mentioned in my analysis of food education lesson plans, farmers and producers are deemed a primary source of knowledge about food. One interview article in the magazine reveals the same point of view:

There is too much to learn about food, and one can never reach the end of it. Those who actually grow food must know much more than chefs do... a farm owner I have business with for years keeps telling me that the taste of carrots

harvested right from the soil is distinct. At first I did not pay much attention to it, but once I tried it myself and understood that it is the best carrot I have ever had (Chen Hui-Tin, 2016b, p.61).

Farmers and producers are thought to be closer to food and therefore capable of catching the very nature of food and appreciating the real tastes that vanish quickly. But it should be noted that telling the truth does not only require the knowledge possessed but also honesty and sincerity: honesty and sincerity with food, with others, and with oneself. It is not saying that telling the truth relies on the speaker's intention, attitude, superior ethical position, or beliefs. What the notion of honesty and sincerity reveals is the relationship between food and the producer that enables truth-telling.

First, to be honest and sincere means to produce food that is honest or real.

Food of honesty and sincerity is what you can taste the time in it. It means the production follows the order of nature... In the short term, it means having seasonal food and serving it while it's still fresh... In the long term, it means not accelerating the ripening and allowing food to naturally grow and ripen... Give enough time to sauces and alcohols that take a longer period of time to age. Let food reach its natural and original deliciousness at the right time; it is the most honest and sincere food.

Those cooked with natural ingredients are honest and sincere. Use only ingredients in their original states, such as vegetables, fruits, poultry meat, fish, and pork, but not vegetable powder, chicken powder, or juice powder. For those ingredients not in their original states, there is no way of judging the quality and understanding the growing environment (Chen Hui-Tin, 2016b, p.60).

Honest and sincere food means that it remains the original tastes and appearances of the ingredients without any concealment or alteration, and follows the norms, traditions, and natural order, so taking shortcuts by using additives to simulate the tastes or shortening the production procedure with chemical agents is seen as cheating and should be condemned. Secondly, honest foods come from honest producers, and both testify to each other as if realness can be shared between them.

It could be argued that there is no distinction between the realness of the object and that of the subject, but only one singular source of realness shared by both of them; the original taste or the real life of the producer are simply different aspects of the source.

The reason farmers and producers are deemed capable of telling the truth about food is because they live a real life that demands honesty and truthfulness with themselves. To produce real food and tell the truth about it, one must live a life that is true to oneself.

When searching for food ingredients, we care more about people than certification. Real food can only be found where there are real people that love the land, and during the search for food ingredients and the development of processing approaches, the attitude and spirit we learned also encourage us to live a real life... Father always tells us to "be honest and sincere in business"... Instead of saying that they are producing drinks, it seems more appropriate to say that they are producing themselves: Make real food, learn how to be true to others and oneself (Bao Zi-Yi, 2018, p.86, 88).

The procedure is not unidirectional. As real food can only be produced by real people, the production of real food in turn makes the producer a real person (or more real) who lives a real life. Hence, to judge if the foods are real and authentic, the key is not to look at the certification but at the producers and see if they live a real life. If so, the food produced and the statements made are consequently real. This notion of real life as a manifestation of truth echoes Foucault's (2011) analysis of parrhesia in the Cynicism and New Testament periods. Foucault thinks that Cynicism presents itself essentially as a certain form of truth-telling, which

finds its instrument, its site, its point of emergence in the very life of the person who must thus manifest or speak the truth in the form of a manifestation of existence... The Cynic's truth-telling takes the privileged form of life as testimony of the truth (Foucault, 2011, p.217).

In the New Testament period, the idea that parrhesia as a mode of being remains.

... in this New Testament literature... Parrhesia is simply a mode of being, a mode of human activity. Second change: this mode of human activity does include... an attitude of the heart, a way of being, which does not need to manifest itself in discourse and speech (Foucault, 2011, p.329).

The mode of life is linked to truth, and it becomes an essential condition of truth-telling, a manifestation of truth, a standard for the truth-value of a statement, and in the case of food education, a proof of the realness of food. Specifically speaking, this real life is defined by the absence of interest. To be honest and sincere means the speech is not for the sake of the speaker's personal interest in any form but a pure and direct expression of one's belief, passion, and feelings, which indicates the purity of the speaker. In Foucault's (2011) analysis of Cynicism, he indicates that the access to truth is related to the break with private interest:

We usually find the question of the ethics of truth in the form of the question of the subject's purity or purification... to have access to the truth the subject must constitute himself in some kind of break with the sensory world, the world of error, interest, and pleasure, with the whole world which, in relation to the eternity of truth and its purity, constitutes the universe of the impure.

... on what conditions will the subject be able to constitute itself as pure gaze, independent of any private interest, and capable of universality in the possession of the cathartic truth? (Foucault, 2011, pp.124-125)

Foucault thinks that "the true life must be a life of poverty is obviously culturally very widespread" (Foucault, 2011, p.256), and in the farmers' interviews and stories, there is also a link between economic disadvantage and truth. It does not suggest that there is any link between Cynicism and the real food discourse, but as can be seen in the interviews of the farmers, this idea that the lack of involvement of economic interest or disadvantaged economic position in some way assures the truthfulness of the speaker's speech is not limited to a certain period of time or place. If deception is driven by the pursuit of the interest, the indifference to the interest on the contrary provides the basis for honesty and truthfulness. Such indifference to the interest can be proved by either the economic disadvantage or the sacrifice of a

higher pay, easier life, or more stable career, both of which are commonly present in the stories in *Honest Food*. For instance,

Not using enzymes to enlarge the fruits is easier said than done. As a result, the yield dropped by 40 to 50%, and the profit was reduced by half. "Is your husband stupid? The other farmers' pineapples are the size of a head, and yours are only as big as a palm," said the neighboring farmer to Wu's wife for her to remind Wu that the size of the fruit is proportional to the revenue.

Since 2001, his farm has started to adopt organic farming techniques... the workload was growing... but the yield dropped significantly... The yield of loofah, the once most prolific produce, dropped from 3000 kgs per day to 3000 kgs per year. Every now and then, they had to endure the neighbors' critical question: "Your father is so stupid! He was doing great in the production and marketing group, why turn to organic farming?" (Chen Hui-Tin, 2016c, p.103)

It seems that the commercial success of the speaker may compromise the sincerity and truthfulness of the speech, as the success could be seen as an interest driven result, and those insensitive to the margin are on the contrary honest and reliable. In the previous chapter, I point out that one definition of fake food is the existence of economic fraud, which seems to resonate with the notion of an honest subject. Since deception cannot be separated from interest, the relinquishment of interest serves as a proof of honesty. In the study of foodies, Baumann and Johnston (2009) point out that authentic food is produced by sincere craftspeople devoted to their work not for money but as a way to express and share their passion. There's nothing calculated or commercial about their products:

Just as self-taught artists represent authentic self-expression and produce authentic art, unschooled cooks seemingly lacking in commercial motivations produce authentic foods (Baumann and Johnston, 2009, p.80).

Just as mass-produced anonymous art purchased from a big box store is not typically deemed authentic, food is perceived as good and authentic when it is

linked to specific creators with honest intentions—intentions that are not limited to making a quick buck (Baumann and Johnston, 2009, p.85).

This might explain the reason that food companies are deemed unqualified for telling the truth, as companies are first and foremost interest-driven and profit-minded, speaking mainly marketing language or what is required by the authorities. Compared with shrewd businesses that strive to maximize profit, farmers and producers are deemed simple and rustic, not knowing how to adopt the most cost-efficient method and promote their products more effectively. The simplicity and rusticity manifest themselves in farmers' honest and plain speech; they do not try to promote the products or persuade consumers to make any purchase but only share their passion for food and philosophies of diet and life. This truth-telling act therefore differs from other verbal behaviors and resembles parrhesia. Foucault thinks that parrhesia as a way of telling the truth is not an art of debate, teaching, persuasion, or demonstration (Foucault, 2011, p.55), as the practice of parrhesia is opposed to the art of rhetoric.

Rhetoric is an art, a technique, a set of processes which enable the person speaking to say something which may not be what he thinks at all, but whose effect will be to produce convictions, induce certain conducts, or instill certain beliefs in the person... The connection between the person speaking and what he says is broken in rhetoric (Foucault, 2011, p.13)

Similarly, farmers' honest and truthful speech is the opposite of rhetoric; it is plain, simple, and easy to understand. They are deemed to tell only the plain facts, the nature of food, and what they learn from their own experiences without any decorative embellishment for promotional purposes. In the interview articles, farmers are often described as frank, inarticulate, idealistic and even clumsy. To tell the truth, one should say things as clearly and directly as possible, without any disguise or rhetorical embellishment, so that the words may immediately be understood, and nothing is left to interpretation. Farmers are therefore in sharp contrast to food companies that produce "fake food" in terms of speech styles. Food companies' advertisements and packages are seen as mostly potentially deceptive and provocative, and all the adverse information might be concealed if possible.

Therefore, it seems necessary for the authorities to prohibit misleading information and force them to tell everything that should be told. On the contrary, farmers' truthful speech is deemed a direct and plain description of their products that comes from their own understanding and personal experience, and nothing they say is designed or selective.

As the decision on whether a certain food is real requires the knowledge of the producers' private lives, personalities, and behaviors, the subject now becomes the object of knowledge. To know foods, first one has to know the farmers and producers behind them, to see their faces, and to hear their stories. Not knowing the producer is seen as one of the issues that should be addressed.

"We all had three meals yesterday, but can you remember any producer's face behind the food you ate?"...

The reason we don't remember is not because of your poor memory; it is because we do not know and care at all. Not knowing where the foods we have that become parts of ourselves come from, and not caring who handles the foods (Wang Chun-Huang, 2017, p.16).

In the discourse of real food, knowing food does not mean developing the ability to understand the label but to understand the producer, as their faces are the ultimate label that is needed: "Try to choose those foods you can tell their original states. The ultimate traceability label is the farmer's face you recall when you see the food" (Li Pei-Shu, 2017, p.112). This ideal is not simply a slogan but has been realized in various ways. Since 2014, the Agriculture Bureau of the Kaohsiung City Government has been promoting the "Visible Faces" traceability label which has the farmer's face printed on the packaging labels, and consumers can scan the barcode to learn more about the production and producer (Shai Mei-Fen, 2016). Another report on "Buy Directly From Farmers" (BDFF), a social enterprise dedicated to empowering small farmers in Taiwan, summarizes this principle: Seeing with your own eyes, and engaging with the farmers to learn more about their motives and lives, as the farmers' life stories are more reliable than the certificates or labels.

"Taiwan's farmers are all faceless", said the founder of BDFF. Food now

becomes a commodity. We do not know the farmers growing vegetables for us, and farmers do not know to whom they sell the vegetables.

When consumers get to know the farmers growing vegetables for them, understand their motives for adopting the organic or non-chemical approach, see the farms, and notice them leaving their children playing in the garden, would they be worried about the produce? This is why we need to buy directly from farmers! BFFF makes the transactions into something more than a commercial practice, so people get to know in essence the food we have is grown by what kind of people. When you go visit farmers' markets, "buying" and "talking" to farmers are equally important. Instead of relying on the certificates, it is better to observe farmers' "attitudes" and "lifestyles" yourself (Fung Chun-Tian, 2015).

Farmers express their own opinions, thoughts, and beliefs in their names, so their faces and voices correlate to the truth value of the statements made; "He must put his name to his words; this is the price of his frankness" (Foucault, 2011, p.16). Different from a dietitian or a food examiner, a farmer does not rely on certain qualifications, certifications, or institutional structure to tell the truth. It is his more honest and sincere relationships with food, others, and his life that enable him to do so. At a certain level, the lack of professional certification might even make farmers' speech more real and truthful, as with less institutional influence on them, farmers are deemed more likely to speak with personal voices from their own life experiences, which are seen as a more direct, intimate, and pure personal experience without being distorted by any scientific system or economic factor. Therefore, instead of checking the certification, it is more important to know the farmers' stories, talk to them and observe with our own eyes, and only by doing so do we get to judge whether one is living a real life, producing real food, and telling the truth. This may explain the growing publication of farmers' stories and interviews, as what these stories reveal is not an occupation but a lifestyle.

With the problematization of the producer's life, a different game of truth emerges, and the producers are to be observed, discussed, and known. Producers are both the discursive object and subject; they are the subject to tell the truth about food, and also the object to be examined to judge the truth-value of their statements. Their

lives become a critical site to explore and extract pictures and voices. For instance, the Agriculture Bureau of the Kaohsiung City Government launches a project that allows the public to interact with farmers and visit the farms to “experience and know the local smallholders’ lives”, and publishes “The Striving Traceability Farmers in Kaohsiung” (高雄產銷履歷農民奮鬥史) to introduce 60 famers’ stories (Chang Chi-Fan, 2016). Council of Agriculture (COA) also thinks that the philosophies of agricultural operators are the core of traceable agricultural products (Su Mun-Lan and Ni Bao-Jan, 2014). To let consumers learn more about the produce in farmers’ stories, COA interviews farmers and includes their stories in a brochure to promote traceability. The safety, freshness, and deliciousness of produce are not the only things worth noting; the passion, courage, ideal, struggle, and adventure of farmers offer more to explore.

With the farmer being legitimized as the “teacher” for food education projects, farms are to a certain degree classrooms and vice versa. The food education promoting Mangiafa Studio designed a school farm project, saying that school farms are the best classroom, and with the collaboration between teachers, students, and external organizations, students can know the food and the place where they live better (Mangiafa Studio, 2017). The Agriculture and Food Agency also encourages farms to hold agricultural experience courses for the general public to learn about food. These locations are activated as sites for observing and talking about food, and the distribution of food knowledge is facilitated through this growing network. When the National Chi Nan University (2017) held a series of agri-food education activities, claiming that “farms are classrooms, and farmers are teachers,” it is not just a figure of speech but actually indicates the fact that farmers, who were deemed to have nothing valuable to say and share, are now seen as the ones who can tell the public the truth about food. This idea that food should be learned on the farm does not only transfer the farm into the classroom, but also makes the school a place to farm. Both the Ilan government and the Taichung City Government legislate food education and require that every elementary and junior high school establish a school farm and include food education lessons in the curriculum, aiming to integrate agriculture into the classroom and cooperate with civil groups and farmers to promote food education relevant activities. Whether indoors or outdoors, in a school garden or an

educational farm, food is examined differently from the quality control or safety examination approach.

5.3 Vendors and Traditional Markets

Besides farmers, market vendors, who weren't considered professionals who understand food, are given the legitimacy to speak up in the food education discourse. This section is an attempt to indicate the possible discursive conditions for the formation of this position.

In several local food education projects, traditional markets are redesigned or reactivated to be educational sites for the public to learn about food from the vendors, who have been growing into another significant voice in food education other than the farmer. However, just like the farmer, the vendor was not deemed a professional with truthful knowledge worth learning before, but someone who needed training and guidance from the authorities. In 2000, for instance, the Central Region Office of the Ministry of Economic Affairs (MEA) launched a program to improve the competitiveness of traditional markets; the report claims that vendors in traditional markets are usually undereducated (MEA, 2000, p.2) and could benefit from the training courses, lectures, and dedicated journals that are designed to instruct them to manage their businesses and improve sanitation of the marketplace. It is the development of food education, among other possible factors, that contributes to the legitimization of the vendor as a speaking subject. This section outlines the local projects that use marketplaces for food education and indicates the conditions on which traditional markets are made into educational spaces, as well as the differences between vendors and farmers as the discursive subjects.

The use of traditional markets for educational purposes is only a very recent development, which provides another possibility of knowing and talking about food that differs from the one relying on the producer's truthfulness and honesty. It should be noted that the behavior of seeking advice on food-related issues from the vendor exists before the educationalization of the marketplace (for instance, how to judge whether a certain food is good by the appearance or the smell/taste, or the proper ways to process and cook it), but the once deemed trivial chatter had not been

considered worth learning until food education discourse justified it, and the vendor is hardly considered a professional with valuable knowledge to be shared with the public. The traditional market was deemed to be an outdated space with hygiene and food safety issues to be solved. The Ministry of Economic Affairs (2017) has launched several programs to address all the issues faced by traditional markets across Taiwan since 1999 to modernize the marketplaces and counsel the vendors to improve their competitiveness. Instead of a source of knowledge, the traditional market was rather an issue to solve to facilitate the local economic growth and reduce the public health risks. It was not until recent years that the marketplace started to be considered valuable to preserve and recreate as a site that bears the local history and culture, a place where the community members meet, and after the heated discussion of food education, a space for the public to learn about food, from the processing tricks to the local dietary traditions.

In Taiwan, the first traditional market food education project was launched in 2015. The Parent-Child Market project redesigned the Taipei Xinfu Market, engaging LongShan Elementary School, Lao Song Elementary School, Ximen Elementary School, and Bo-ai Elementary School in the neighborhood to provide food education courses to the students.

Letting children ask the vendors directly is the fastest way of learning about food. There are not only tips for picking food but also the introduction of food processing... kids can also learn about... essential nutritional knowledge in the market classroom... (Yang Ro-chen, 2019, p.136)

In the same year, a food education event was held by the Taoyuan City Government in DaNan market, where

The vendors become food education teachers, inviting children to learn about food, know the local produce in Taoyuan, and understand what kind of eating habits are healthy. [The event] does not only establish the foundation of food safety consciousness but also let consumers understand that traditional markets are the best place for the development of food education (Hsu Nai-yi, 2019).

It is worth noting that in these two projects, nutritional knowledge is taught by the vendor, which was once exclusively the dietitian's or doctor's job and is now part of a broader food education network that allows various kinds of food knowledge to be legitimately delivered in a more flexible way.

Similar food education projects have been launched since then. The Taichung Jianguo Market started cooperation with local schools to promote food education in 2017, aiming to reestablish the relations between humans, food, and the land, help the public understand what they eat, and develop their ability to properly choose food (Chen Shi-zong, 2017). Taijiang Campus, Tainan Community University started the "Traditional Market School" (菜市場學校) course in 2019, guiding the students through the marketplace to learn about all the vegetables, fruits, fish, and meat sold from the vendors (Huang Xuan-han, 2019). Yilan City Office launched the Market School (大市場、小學堂) project, transforming the traditional markets into classrooms for the public to learn agriculture, food, and local culture from vendors (Hi Yilan Editing Team, 2019).

In the descriptions of these projects, some conditions can be seen as similar to those of farmers, such as being places with access to real food. Both projects emphasize that in traditional markets it is possible to observe that the food available for sale changes according to the season and that different local markets have their specialties. Secondly, the people and items found in the market are seen as unpretentious, simple and straightforward, echoing the concept of honesty analyzed earlier. The difference, however, is that vendors are not entitled to the status of creator like farmers got from producing real food through the notion of original taste. Instead, it's the concept of daily life that grants vendors the legitimacy to speak up. By examining two market food education projects in Taipei, I would like to suggest that it is the link between traditional markets and everyday life that serves as a source of truthfulness to justify the speaking position of vendors, and it is this everyday-life property that ensures the authenticity of marketplaces, the extension of the local's kitchens, and their daily life in miniature (Casca, 2020, p.24). But it should be noted that I attempt neither to explain how the marketplace is linked to everyday life, whether in discourse or essence, nor to examine the validity or the rationality of

such link, but to simply point out it is this connection that allows the vendor to enter the discursive field of food education.

In 2017, JUT Group launched the U-mkt project for re-orientating and re-designing the Xinfu Market. The management orientations of this project are as follows (Umkt Project, n.d.):

1. To transform this market to be a space for food education.
2. To make this historical site a basis for social issue discussion.
3. To form this venue to be a platform communicating the local and communities external to it.

The reason a traditional market can serve as a food education site is because

A market is not simply a distribution center of food but also circulates various folksy pieces of wisdom and professional knowledge... A trip to market can bring you the guide of picking seasonal food... regular customers bond with each other chatting; gradually, the everyday communication develops into a life lesson, and every market is made a site of local knowledge with collaboration (Umkt Project, n.d.).

Its *Study of Good Food* (良食學) course in Xinfu Market states that

Traditional markets connect the natural ecosystem and everyday life with food, therefore, if one wants to know how to eat in a healthy, seasonal, and sustainable way, traditional markets are the ideal classroom for food education... Our Study of Good Food course will bring everyone to the market to study and reexamine the relationship between good food and good life (Umkt Project, n.d.).

A design company City Yeast also chooses the same area to launch its food education project, the *Market Elementary School Project* (市場小學計劃) at Dongsanshui Street Market in 2016. It renovated shops and set up a classroom inside the market with illustrations on the walls to teach students about nutrition and

the relationship between food and the body, as well as the stories behind food, the local dietary culture, and the everyday-life knowledge passed down from generation to generation (City Yeast, n.d.).

Market Classroom:

With its rich historical context and the exchange of everyday-life knowledge, a market makes a great site for life education.

We hope every market has a “market classroom” well equipped with books on food... make the traditional market an actual school (City Yeast, n.d.).

The *Extra-Ordinary Taipei/Traditional Markets* claims that to understand daily life in Taiwan, one must not miss the traditional markets (Taipei City Market Administration Office, 2018). The guidebook then says that in a society of eating out, traditional markets play an important role in passing down everyday food knowledge (Taipei City Market Administration Office, 2018). Yilan’s “Traditional Market Agri-food Education School” (菜市場食農學校) project aims to bring local teachers and students back to the traditional market and to turn the marketplace into a “daily-life food education school”. Its organizer states that the traditional market is not just a place for food but also a part of the local everyday life and culture, as well as a school for agri-food education (Xie Zheng-cang, 2020, p.17). The traditional market is first a part of everyday life and then a place for food education. It is discursively connected with the notion of a fading ideal ordinary life that is rarely preserved in modern times, and the connection serves as the foundation for the marketplace to be a food education space. If the farmer’s personal life is the manifestation of the truth they tell, in the marketplace, it is the everydayness that justifies it as a place for learning everyday food knowledge. As an ideal classroom for food education, traditional markets offer an opportunity for visitors to reexamine the relationship between food and life. The market is the place where everyday life is felt and the vendors are the experts in it, or more accurately, in everyday food.

Years of skill become kung fu; years of experience accumulates as a craft.

Whether you are a home cook who has cooked for dozens of winters, a shopkeeper who has succeeded in the market for generations, or a craftsman

who has used skills to feed a family, you become an expert when investing enough time and effort in it.

In the field of "craftsmanship", we focus on this group of experts in ordinary life and invite them to pass on their skills and share their stories. (Umkt Project, n.d.)

The Umkt Project description points to the qualification of vendors. Like the farmer, the vendor's profession does not come from a standardized system of education and certification but from a cumulative history of experience, their qualifications and life are inseparable as a whole. The personal lives of vendors, as proof of their professionalism and authenticity, therefore, also need to be known. While the vendor acquires the role of legitimately teaching the public about food and local dietary culture, just like the farmer, the vendor's stories become the object of knowledge that is worthy of knowing. The *Extra-Ordinary Taipei/Traditional Markets: visiting traditional markets, seeing the beauty of life* (尋常·台北 | 傳統市場：逛菜市仔 看見生活中的美好) published by the Taipei City Office of Market selects 14 traditional markets in Taipei and interviewed over 30 vendors about their stories. Another book titled *Taiwanese Traditional Markets* (台灣味菜市場) introduces the vendors, foods, and local dietary cultures in 28 traditional markets.

With the educationalization of the marketplace, this transformation also reflects on the way of addressing vendors. Both market food education projects address vendors as shokunin (職人). For instance, the pamphlet of the exhibition celebrating the reopening of Xinfu Market reads,

The exhibition Xintomicho: A Spot of Culinary Creations attempts to go through food, specialties, and shokunin's stalls from the genealogy of traditional markets... What kind of life do they live? With what shokunin spirit? (Chen Yun-xian, 2018, p.2).

The Japanese word shokunin is defined as a craftsman or artisan, but as Odate (1984) rightly suggests, this word has deeper meanings that cannot be fully translated into English, including the implied emphasis on technical skills, attitude,

social consciousness and mastery of one's profession. The Pictures of Shokunin section of this exhibition defines shokunin in traditional markets as "skilled craftsmen with wisdom passed down from generation to generation" (Chen Yun-xian, 2018, p.7). By addressing a vendor "shokunin", the commercial overtone is downplayed, and the reasons vendors are qualified to talk about food are implied: their experience, skills, and devotion to the job.

This title is also applied to farmers in several food education projects. For instance, the Tian Yuan Qing Studio (涇源青) in Hsinchu has been promoting food education since 2014, staying in rural areas to learn and preserve the disappearing agricultural art, handcraft, and other daily-life techniques from the rural "Shokunin", as these skillful agricultural, craft, and culinary Shokunin in the rural area still keep the traditional knowledge and skills (Tian Yuan Qing, n.d.). As the labor of producing and processing food that was once deemed unskilled is reinterpreted as a technique, art, and craft, the subject of labor becomes the subject of knowledge. Another food education project Fabbrica Ilan Contadina explains the design of its logo, saying that the visual design combines the two kinds of blue that usually represent Shokunin's spirit to convey the local farmers' insistence on food quality (Yilan Ban, n.d.). The use of "Shokunin" to refer to farmers and vendors marks the different discursive formation of the speaking positions and the legitimization of the knowledge that can be produced, possessed, and circulated. Both subjects are not deemed ignorant, uneducated, or nescient, but professionals with valuable techniques and knowledge that should be taught to the public.

From hard labor to shokunin, the standard that legitimizes knowledge has been re-evaluated. Farmers' and vendors' personal experiences used to be ignored, but are now considered by food education discourse as a legitimized range of knowledge that could and needs to be invested and developed. Whereas science, such as nutrition, systematically mines the production of truths that lie deep within food and cannot be directly understood, prescribing rigorous collection, production and distribution procedures that require large equipment and trained operators, food education re-evaluates and re-activate a more widely scattered, empirically accessible, shallow mineral that was previously considered to have no mining value. The food knowledge gathered in the food education discourse is directly compatible

with everyday life and is accessible by individuals without the need for elaborate equipment, systematic procedures or experts, and circulated for use without further processing. In food education discourse, there is no professional or technical threshold separating the knowledgeable and those who aren't as in modern science, but simply a difference in the depth of lived experience with food.

The field in which food education is built is therefore different from that of nutrition. Nutrition discourse envisages a life with an undercurrent of imperceptible risk, where the truth of food is also not directly perceived, and therefore requires experts who see what cannot be seen by ordinary people, and who teach truths that are not directly compatible with everyday experience. This knowledge is generated in its specifications: nutrient content, function, risk of chronic disease, etc. Therefore, the nutrition discourse needs to be formatted and ensure a universal set of various adaptations, such as the conversion of daily nutrient requirements in the Dietary Guidelines to specific food portions, and nutrition labeling on packaging and menus used in conjunction with the guidelines. This set of rules for the production and use of dietary knowledge is realized through some adaptors connected to personal experience and food, leading to conditions of the formation of the discursive subject that are distinct from food education. In the next chapter, I will analyze Taiwan's nutrition education policy and show how the conditions of discursive formation, the language used, space for the games of truth and the subject are different from that of food education.

Chapter 6 The Nutrition Discourse

Scrinis (2008) indicates that since the late nineteenth century, nutrition science has been characterized by the attempt to understand foods and diets in terms of their nutrient and biochemical position (Scrinis, 2008, p.40). He refers to this nutritionally reductive approach to food as the paradigm of nutritionism, which is the dominant paradigm that represents the definitive truth about the relationship between food and bodily health, frames government-endorsed dietary advice and replaces other ways of engaging with food. The paradigm of nutritionism has given rise to “a way of looking at and encountering food as being composed of nutrients, which overwhelms other ways of encountering and sensually experiencing food” (Scrinis, 2008, p.46). Instead of observing the food itself, the nutritionism paradigm encourages eaters to view food through measurements of constituent ingredients, hence entailing nutrition education that is based on the biochemical level of knowledge and the quantitative tools, such as the food composition database and nutrition facts label.

In Taiwan, nutritionism is also the dominant paradigm. In Chiang Shun-Nan's (2012) analysis of dietary knowledge in Taiwan, he argues that the government's regulations of diets are based on nutrition science through the promotion of dietary guidelines and dietary reference intakes. This dietary regulation system assumes that healthy bodies are from healthy diets, and healthy diets are from correct nutrient intakes (Chiang Shun-Nan, 2012, p.5). While reviewing the discussions of food education, nutrition still occupies a significant part of the textbooks and local food education projects. However, it should be noted that the co-existence of both discourses is not one to be taken for granted, and the relations between them have to be carefully examined. Rather than seeing nutrition as a simplified version of the more comprehensive dietary experience and food education as an attempt to restore its wholeness, this study considers them as equally effective sources of knowledge of food. Coveney (2006) thinks nutrition science limits the value of food to its nutritional components, and the savage experience of food is being destroyed by the impoverished nutrition discourse. But as Foucault (1973) points out, a full experience of food does not exist, and the understanding of food is always fragmented, decided by different games of truth. What we can be sure of, is that there is no unified

knowledge that contains all the fragmented understanding of the object, no matter how attractive this dream is, but one space for the games of truth, and discourses that attempt to fixate experiences locally: nutrition science, food education or gastronomy. One doesn't have more legitimacy or effectiveness than another. Under the premise, this chapter aims to present the specifications of nutrition being the dominant discourse to teach the public about food by analyzing public health policy, bills, dietary guidelines and textbooks. By illustrating the discursive objects, subjects, and the games of truth in the form of the distinction between real and fake, healthy and unhealthy food, I attempt to determine an effective range for both nutrition and food education discourses.

While analyzing the nutrition discourse, its proximity to and independence from medicine is the first to be examined, as this is critical for us to understand its context of problematization. Seeing chronic diseases as the major issue to address, nutrition discourse secures its own authority and legitimation by establishing a space where everyday life and diseases co-exist, which is very different from the one medicine occupies with diseases being defined as the exception outside the daily life. Nutrition focuses on the deviations of everyday dietary habits rather than the deterioration of physical functions; it relies on the adjustment of food consumption rather than pills or surgeries; it aims to reduce the risks of diseases or find ways to live with the conditions rather than find the cure to eliminate the cause.

This chapter then explains how the functioning discursive field of nutrition is defined by the following two features: First, the use of a financial accounting framework. Compared with the language of warfare commonly used in the medical discourse (e.g. fighting diseases), nutrition problematizes food in the language of finance and estimates the cost and benefit. The consumption of food is compared to the deposit and expenditure of nutrients which require bookkeeping to make sure the cost of and revenue of nutrient intake are within the budget set by the dietitian. Secondly, the equivalent exchange and complementarity of food. As for the nutrition discourse, food is a combination of simple nutrients used to meet physiological requirements, different types of food can replace each other when converted into nutritional components without considering other factors. This to some degree contradicts the non-replicability of food that food education often emphasizes. This chapter then explains the rules for the combination of nutrients. By analyzing dietary guidelines,

this study explains how the two axes - the equivalent exchange and complementarity of food - establish the space where the game of food replacement and regrouping takes place, and how healthy food is distinguished from junk food.

In the end, this chapter points out the differences between nutrition and food education in terms of the subject positions and the procedures of problematization. While the differences could be identified and confirmed, I try to argue that the two discourses are seen as a unity might result from the fact that their discursive objects coincide with regulations imposed indiscriminately; that is, real food is often used as a synonym for healthy food and fake food for junk food. Besides, both discourses invest in the infrastructure at the community level to generate localized knowledge, which forms the foundation for their strategic alliance. Both sides benefit from the alliance: the nutrition discourse further legitimizes its independent status from medicine by incorporating certain elements from food education, another discourse that is independent of medicine. Food education, on the other hand, can establish itself as an extension of nutrition education and make use of existing institutions and resources to expand at a faster pace.

The integration should therefore not be read as one annexes or negates the other, or that the two discourses merge into a more comprehensive dietary regime. It is not a reflection of the hegemony of nutritionism; it is not an attempt for food education to replace nutrition education for a more accurate or full understanding of food; it is not that nutritionism tries to annex food education to extend itself from hospitals to our daily life and colonize the more personal experience with food. Rather, it is an unstable and temporary alliance that is only locally made possible under certain conditions; it is a strategic reciprocity that allows them to appropriate resources and reduce the cost of regulating more or less the same object, whether it's labeled as fake or unhealthy. The vague intentions and resonance of their voices make it possible to ignore the differences between nutrition and food education and create a seemingly consistent front. However, the alliance could easily fall apart when these conditions change.

6.1 Away from Medicine: Nutrition and chronic diseases

Nutrition as a scientific knowledge system is inseparable from medicine in terms of its theoretical foundation, systemic structure, and physical venues. The development of nutrition science in Taiwan has historically relied on manpower and resources from the medical system (Liu Hui-Ming, 2014). After the Medical Personnel Management Act was passed in July 1999, dietitians were enlisted as a part of medical personnel, which contributed to the establishment of their professional status. Since then, the majority of dietitians have been working in medical institutions and managing patients' diets to facilitate their recovery (Chin Huei-Min, 2021, p.iii). Perhaps it's the natural proximity of the two, nutrition science is often considered as an extension of medicine or an attempt to colonize everyday life (e.g., see Armstrong, 1995). However, on the discursive level, this study considers nutrition as a field that is relatively independent. This is not to say there is no connection between the two but to indicate the different contexts of problematization, as well as the attempt of nutrition to seek independence from medicine.

Preventive medicine has gradually gained the public's attention, and dietitians are at the forefront of it... how to reduce the risks of illness and delay aging through the adjustment of daily diets is not something a doctor alone can accomplish. Thus to establish the authority of nutrition science is imperative for dietitians (Tsai Ling-jane, 2014).

One of the main differences between the fields of nutrition science and medicine is that the distinction between health and disease has become unclear. Armstrong argues that Surveillance Medicine requires the dissolution of the distinct clinical categories of "healthy" as the lack of diseases (Armstrong, 1995, p.395). Despite different terms we use, what Armstrong (1995) names as hospital medicine and surveillance medicine refer roughly to the two discourses this chapter reviews: medicine and nutrition.

The lesion marked out those who were different in a great binary system of illness and health, and processed them (in the hospital) in an attempt to rejoin them to the healthy. The tactics of the new Surveillance Medicine...

recognize[s] that health no longer exists in a strict binary relationship to illness, rather health and illness belong to an ordinal scale (Armstrong, 1995, p.400)

Each illness of Hospital Medicine existed as the discrete endpoint in the chain of clinical discovery: in Surveillance Medicine each illness is simply a nodal point in a network of health status monitoring (Armstrong, 1995, p.401).

Cancer surgeries might be the perfect illustration of the medical discourse's focus on the line between health and disease. For surgeons, removing a tumor is a balancing act, as cutting out too much might cause unnecessary removal of healthy tissues that have important functions, and removing too little could leave behind cancer cells that would grow back into a tumor over time. Surgeons need to determine exactly where tumors end and healthy tissue begins to minimize damage. The hospital as a space for the medical discourse distinguishes between two opposing states: the abnormality of illness and the normality of health. Firstly, to observe, collect, and present the clues of disease from the patient in a fashion that could prevent the symptoms from being influenced by environmental factors, the hospital needs to remove the messiness from the real world that cannot be controlled and isolate the patient spatially to make the disease visible. After the patient is admitted, they are kept in a restricted area, so the effects of the treatment can be monitored without interference. Diseases can be better observed and treated in "a neutral domain, one that is homogeneous in all its parts and in which comparison is possible" (Foucault, 2003, p.134) than their natural habitats we call everyday life.

Clinical medicine devotes considerable resources to the exploration of the boundaries between diseases and health, attempting to push the frontiers of health, while at the same time increasing the number of diseases it comes into contact with as a result of this expansion. It is a mutually proliferating spiral of knowledge. The identification and treatment of each disease in turn defines a piece of "health" around which more diseases are potentially to be explored. In this respect, it seems a logical and natural progression from the dichotomy of disease and health to the metabolic syndrome as a pre-disease state or underdeveloped disease to the risks of chronic diseases, which do not emphasize the health and disease distinction. The boundaries that medicine is constantly pushing outwards gradually move farther

below the visible horizon from the hospital. In exploring diseases, the depth of illness was folded into health, and the possibilities of disease are both internal and external to everyday life, emerging everywhere and nowhere. Hospitals become individual refuges in the wilderness of risk and are no longer frontline fortresses. As Armstrong (1995) points out,

The blurring of the distinction between health and illness, between the normal and the pathological, meant that health care intervention could no longer focus almost exclusively on the body of the patient in the hospital bed. Medical surveillance would have to leave the hospital and penetrate into the wider population (Armstrong, 1995, p.398).

The focus is no longer the symptom that points to the pathological truth of disease, but the risk factor that opens up a space represented by the notion of lifestyle to identify the precursors of future illness potential, and symptoms and diseases become conflated into a continuous distribution of variables, an infinite chain of risks (Armstrong, 1995, p.401).

Finally, the practice of revealing the existence of illness also differs. For clinical medicine, all truth is sensible (Foucault, 2003, p.148). Connecting the superficial symptoms of a disease to its deeper causes requires a fine sensibility, a vigilant touch and a keen eye; as Foucault (2003) says, it is more of an art, an expression of personal sensitivity: "This is no longer the ear straining to catch a language, but the index finger palpating the depths. Hence that metaphor of touch by which doctors will ceaselessly define their glance" (Foucault, 2003, p.150). Even nowadays, technological developments in diagnosis and surgery are to a certain degree extending the reach of this sensibility - how to see and reach more deeply. Yet the basis has not changed: the perceptibility of illness. In contrast, chronic diseases lack this empirical thickness for the index finger to palpate, as risks are scattered on a surface that does not have depths. Instead, a process of collecting, comparing and calculating a large amount of fragmented data is deployed, because, by definition, risks exist between symptoms rather than within or beneath them, and cannot be immediately captured by a glance or touch. What it takes to understand the risks of chronic diseases is not a discerning eye looking into the depths of the disease, an

inspired genius conquering the gap between the symptoms and the underlying causes, or the sensibility of an artist. It is the careful comparison conducted by a mediocre bookkeeper, the tedious step-by-step measurement of the gaps among the scattered risks (rather than the boundaries of health and illness), and the daily counting of food crumbs. This feature is even more evident in the language it uses.

6.2 The Languages of Warfare and Accounting

What can be said about the perceivable illness and the trivial risks beyond perception are different. The dominant metaphor and language used in medical discourse are about the battle along the boundaries between health and illness, where illness is seen as a foreign invasion of the healthy body. Risks, on the other hand, do not invade; they are gaps that people fall into, that are hidden under the road they normally walk on. In the former, the patient is more or less passive and helpless; they do not choose but simply receive the sudden attack of illness (although in medical terms illness is not always sudden). In the latter, it is more of an inadvertent wrongdoing that leads one to be aware of its existence and the need to “manage” it.

The disease is always an external threat. In analyzing illness as a metaphor, Sontag (1978) points out that even if the cells are not of external origin, such as bacteria, viruses or parasites, cancer is still seen as an attack by abnormal cells.

The controlling metaphors in descriptions of cancer are, in fact, drawn not from economics but from the language of warfare... cancer cells do not simply multiply; they are "invasive." (Sontag, 1978, p.64)

Treatment also has a military flavor. Radiotherapy uses the metaphors of aerial warfare; patients are "bombarded" with toxic rays (Sontag, 1978, p.65)

She thinks the military metaphor in medicine first came into wide use in the 1880s, with the identification of bacteria as agents of disease, which "invade" or "infiltrate" (Sontag, 1978, pp.65-66). As the patient's body is considered to be under attack, the treatment is therefore a counterattack. Yet this military metaphor is not just

applicable to one specific disease, as Fuks (2010) argues, it is widely adopted in the field of medicine.

Medical discourse is replete with the language of warfare... The mindset engendered by this discourse of war renders the patient as a battlefield upon which the doctor-combatant defeats the arch-enemy, disease... Diagnostics becomes centred on the putative agent and therapeutics revolves around extirpation and conquest (Fuks, 2010, p.57).

Later on Fuks (2010) criticized the language, considering the military metaphors of medicine “undermine the ability of physicians and society to deal thoughtfully and effectively with the growing prevalence of chronic illnesses” (Fuks, 2010, p.63). Like Armstrong (1995), Fuks (2010) also looks at chronic illnesses through the lenses of medicine, which I think is where misunderstanding happens. Fuks (2010) analyzes the language on diseases in general but not specifically on chronic diseases, which he considers as a type of disease to which the conclusion is equally applicable, thus reaching the conclusion that the language medicine uses undermines the ability of physicians and society to deal with chronic illnesses. In my view, the metaphors of medicine have not failed but are simply inapplicable. Chronic diseases are different from other diseases in terms of the discursive foundation.

Chronic illness is documented in a household journal where the tiniest abnormality can be tracked in everyday life, rather than in the heroic epic where medicine fights the enemy and celebrates victory. As there is no enemy to defeat, no foreign invasion by bacteria, viruses or mutated cells that can be expelled or destroyed, what individuals need is not the sheer will to charge and fight until they are defeated, but the diligent and careful recording to detect the signs of imperceptible dietary deviations before they occur, as well as the relentless comparison with the norms suggested by experts, the calculation of every one bite, and any necessary measurement, negotiation, and concession. In a nutshell, what exists on the disappearing battlefield against illness is a marketplace where nutrition and risks are exchanged, and where the language of business management is used to assess profit and loss. As Thorne (2008) argues, the focus on “management” signals a shift away from the dominant notion of treatment to stewardship (Thorne, 2008, p.10).

Since chronic diseases cannot be “cured,” what can be said is the risks before the disease takes form, and how to manage the disease so the patient can live with it.

The language used is therefore borrowed from economics, finance and business, not warfare. Scrinis (2013) indicates that from the 1930s, “the supplement industry used the belief that vitamin supplements provided a form of ‘health insurance’ to justify and promote their use. The industry promoted this vitamin insurance policy—or vitaminsurance—as a safety net for a range of nutritional threats” (Scrinis, 2013, pp.136-137). For the individual, it is the daily accumulation of health assets in terms of nutritional gains and losses that needs to be insured, while for the nation it is the adjustment of the overall curve of the population’s health index and the establishment of the growth model. Dietitians are financial consultants advising individuals and governments on the “asset management” of health (Lian-An Clinic, n.d.). The quantitative language of nutrition that Mudry (2009) refers to is not only intended to introduce scientific objectivity but also formed around this economic and financial framework and procedures. At the personal level, the procedure dietitians suggest is similar to bookkeeping and depositing. As mentioned by Cullather,

Nutritionists suggested that “scientific eating” based on caloric “bookkeeping” would increase national efficiency (Cullather, 2007, pp.345-346).

Balance remained the ideal, but in place of the calorie's double-entry bookkeeping, it now meant a distribution across a spreadsheet of five or more columns, an audit capable of identifying deficiencies by type as well as degree (Cullather, 2007, p.354).

More specifically, eaters should record the content of each meal and analyze the items individually, to calculate the nutrients and calories we take in, just like the recording of deposits and withdrawals in our bank book. Cheng Nai-yuan (2018), the head of Lian-An Wellness Center, emphasizes the significance of a “deposit book of nutrition,” suggesting avoiding the abuse of nutrition supplements which would cause an imbalance of nutrition. It is the same for controlling calories: “You can lose weight the way you manage your wealth; it’s the concept of breaking even. Weight change depends on the calorie intake... (Money magazine editorial, 2016). It is worth noticing that by recording every transaction (food consumption), it is health that is

being managed and deposited, while nutrition is considered as a subsidiary ledger in the general ledger of health. In his book titled *Health Passbook*, Sun (2011) compares health to a passbook, and losing physical strength without restoring it could create an alarming condition for the body. Therefore it is critical to "protect your capital" and prevent the account from being in the red. Health is compared to an intangible property that one can have or lose. Like managing wealth, one has to be calculative to avoid risks or deficits (Yan Zhen-yi, 2010). To compare health to wealth is not new, but this metaphor becomes operational in a wide range for the first time when connected to the infrastructure of nutrition, such as a nutrient database and food labeling system. The columns in the account book are now given specific labels - calories and various kinds of nutrients. If there is revenue at the end of the day, there is a surplus in terms of the intangible property of health, and a deterioration of health if loss is recorded.

It should be noted that this bookkeeping of health is conceptually more similar to the calculation of cash flow. By definition, cash flow is the inflow and outflow of cash and cash equivalents generated by an enterprise through economic activities during an accounting period. Based on this definition, we can say that nutritional flow is the amount of nutrient intake and consumption generated by an individual through dietary activities during the day (the accounting period). A positive nutritional flow gradually builds up a long-term health asset that is more resilient to risks, while a negative one leads to a lack of cash available and a continuous loss of health, which increases the risk of health insolvency and weakens the business. Under the new nutrition accounting system, the right diet will only guarantee a short-term surplus, while any deviation can result in an immediate deficit; instead of a temporarily distressed patient, what we have now are business owners chronically in debt.

Either the bankbook or the cash flow metaphor leads to a specific way of problematizing the diet: comparing dietary activities to business management, finance, and the calculation of cost-effectiveness. Effectiveness has been at the center of nutrition policy in Taiwan. Its roots could be found in the historical context. Initially, nutrition was clearly defined as an economic issue. The origin of dietetics in Taiwan lies in the post-war demand for the most efficient distribution of limited food supply so that eating most economically became the focus (Liu Hui-Ming, 2014). Fan

Yen-Chiou (2018) examines the nutrition discourse in Taiwan in the 1950s and points out that to serve the food policy, emphasizing the nutritional value of food became a necessary strategy, such as calculating the nutritional value of sweet potatoes and promoting mixing grains with rice for staple food, which was beneficial to the economy. The government's subsequent policy to promote noodles was also in line with the U.S. Aid and financial officials' plan to exchange surplus wheat flour for rice. Fan (2018) therefore concluded that nutrition was more of an economic issue than a health issue.

This measure of nutritional economics to avoid food inefficiency has been consistently mentioned in policies and bills. In the discussion of the Dietitians Act, a legislator said “We hope that the Act will lead to economizing the science of diet. How to let people with different needs get the nutrition they need without wasting food...is something that should be explored in this law” (Lai Wan-zhong, 1984, p.22). However, this doesn't mean the economic efficiency of food is firstly or exclusively raised by nutrition science. The point is that nutrition has changed the way of thinking about diet as an economic issue. Before the emergence of nutrition science, the efficiency of food was evaluated by the level of satiety it provided (how long one could stay full without feeling hungry) or by the ratio of market price to weight or volume: how much food one can get per unit cost. As a basic commodity, food was not compared in terms of its origin, taste or composition, but in terms of physical attributes such as weight and volume. Mudry (2009) also mentions this situation, saying that “prior to the merge of the data of the bomb and respiration calorimeters, food's numeric information was external to the food itself. A food's quantities dealt strictly with extrinsic amounts, numbers that could be determined through gross weights and measures” (Mudry, 2009, p.37).

The importance of the calculation of calorie and nutrient values lies in the fact that the economic efficiency of food has benchmarks that are deemed more intrinsic and objective, which, as Mudry (2009) says, are inherent in the characteristics of food: “While a ‘pound’ of apples was brought into existence by a weight scale, the measurement of the ‘pound’ had little to do with the apple itself. However, the measurable nutritional qualities... became intrinsic qualities of the apple (Mudry, 2009, pp.45-46). Food now “has a standard value that can be tabulated as easily as

currency” (Cullather, 2007, p.339), and the enumeration of food allowed its quality to be judged in terms of the ratio of its market value and nutritional value, not the ratio of its market value and physical attributes.

For Atwater (1895), the best foods were the ones that yielded the most energy for the least money. Distinguishing between good food and bad food required calculating a cost/energy ratio for each.

The conception of food as energy value was undergoing a transformation into food as a calculated ratio between energy value and financial value. Selecting the right foods now required calculation on two levels. First, the caloric needs of the household had to be determined: food purchases coming into the house had to equal the energetic output of its members. Second, food purchases had to be sound fiscal selections so that the amount of energy and nutrients in the pantry was “economical.” (Mudry, 2009, p.40, p.41).

After the concept of calories was introduced, it is no longer the volume or weight of food we eat or how full we feel but the energy in it that determines the efficiency of food. The equation changes from weight or volume/price to calories/price. Foods of good value provide more calories for the same cost. The other ratio, energy density, also uses calories as a criterion for food efficiency but only uses the weight of food instead of price. In the latter, the focus is not whether one can afford it financially but how much one can digest - the maximum intake of energy in a limited stomach space.

The evaluation of food took another turn after the introduction of nutrition values, which came later than the calculation of calories. After people have widely accepted the health benefits of vitamins and minerals and the dangers of food high in calories, calorie-driven formulas are no longer the criteria for the evaluation of food and have been replaced by concepts such as “nutrient density.” According to Scrinis, the concept of “nutrient density” has been in circulation since the 1970s, but only came to the fore in nutritional discourses in the 2000s (Scrinis, 2013, p.307-308). Though not formally defined, the concept of nutrient density is based on the amounts of key nutrients contained in 100 kcal of a given food (Drewnowski, 2009, p.422S). It is with

this newly introduced measurement that superfood is celebrated: “The imperative is to seek out ‘nutrient-dense’ foods... has translated into a growing fetishism for ‘super-foods,’ which can be defined as ordinary whole foods with especially high concentrations of functionally beneficial nutrients” (Scrinis, 2013, p.328). The measurement of nutrient density presents a key change, namely that calories have moved from being a benefit that should be maximized as much as possible when measuring the value of food to being a cost to be incurred, a subject of budgetary constraint. In the weight/price and energy density equations, the goal is to spend as little as possible in exchange for as many calories as possible. For the measurement of nutrient density, however, the goal is to obtain more nutrients within the calorie intake as low as possible.

This measurement also implies that the efficiency of food can be calculated completely without reference to the values external to the food itself, such as volume, weight, or market price, and be determined solely by the ratio defined as intrinsic to the nature of food. The distinction between good and bad food is the distinction between the intrinsic natures that are more and less efficient. Even though other assessment formulas are still being used, the importance of nutrient density in symbolizing the nutrition discourse cannot be overemphasized. To a certain extent, nutrient density is a representative function of the nutrition discourse, and its game of truth takes shape between the thermodynamic and biochemical axes, which is illustrated in the following section.

6.3 The Substitution and Combination of Food

In the last section, I pointed out that the core of the nutrition discourse is the principle of nutrition/calorie efficiency. By analyzing the dietary guidelines, I attempt to further illustrate how this principle is applied and forms a space where foods are translated into calories and nutrients, so they can be added, subtracted and re-arranged to meet the dietary requirements for different groups of people.

The principle of nutrition efficiency takes on a different form: In choosing what to have for a meal, eaters must meet the basic nutritional threshold without exceeding the calorie cap. For this purpose, foods that are considered to be “good” in effect

refer to the ones that easily meet or exceed the nutritional threshold while minimizing the calories provided so they do not squeeze out the budget for other items. By this standard, foods with high nutrient density, or superfoods, are the best, and the opposite would be low nutrient density or “junk” foods providing no nutrients but high in calories, therefore difficult to fit into the plate to replace any items for pairing. Apart from junk food, most foods are deemed interchangeable in the nutrient coordinate system; food is located by a set of coordinates positioned by its energy and biochemicals, and other items around it providing similar energy and nutrients can be considered interchangeable (Cullather, 2007). After all, a calorie is a calorie (Scrinis, 2013), and a nutrient is a nutrient. As Coveney claims,

The common assumption running through these dietary recommendations and weight-loss plans is that we can adequately explain the health implications... by looking at their macronutrient profiles... once the ideal macronutrient ratio has been established, the actual foods we choose to eat to achieve the optimum macronutrient profile are more or less irrelevant (Coveney, 2006, p.62).

The Dietary Guideline is built on this assumption. It lists six groups of foods and how foods in the same group can proportionally replace each other. Take miscellaneous grains as example:

*A bowl of whole grain
= A bowl of brown rice, a bowl of miscellaneous grain rice or a bowl of plain rice
= 2 bowls of cooked noodles, 2 bowls of millet porridge or 2 bowls of oatmeal porridge
= 80 grams of rice, barley, wheat, buckwheat, oats, wheat flour, wheat flakes
= $\frac{2}{3}$ medium size taro (220 grams) or 2 small yams (220 grams)
= 2 and $\frac{1}{3}$ corn (340 grams) or 2 potatoes (360 grams)
= 1 and $\frac{1}{3}$ whole wheat steamed bun (120 grams) or whole wheat toast (120 grams) (HPA, 2018, p.10)*

The foundations of different dietary systems may not coincide. The interchangeability of grains in the dietary guidelines is meaningless in recipes; if a potato is replaced by yam or taro in a dish, you end up with a different dish that requires different seasoning or processing. Chefs may have their tips for replacing one ingredient with another without undermining the taste, and for certain cuisines, particular ingredients may not even be replaceable. For a fast-food combo meal composed of the main dish, side dish and beverage, the options for substitution are provided not for their similar macronutrient profiles or tastes, but more likely for the cost. The point is the space where foods can be interchanged and combined is defined by the practices and rationalities deployed.

For nutrition science, Foods with various origins and tastes are made interchangeable through comprehensive analyses and statistics of their nutrient profiles. The first national nutritional analysis of food in Taiwan took place in 1961, analyzing 384 common food items in 11 categories including vegetables and fruits, and the analysis results were used for nutrition policymaking for 30 years (Liu Hui-Ming, 2014, p.34). The plan to establish a database of food ingredients and nutrients began in 1991; researchers collected food samples bought from traditional markets, grocery stores, supermarkets and convenience stores, and processed them the way they are usually consumed for the analysis of their nutrient contents (Liu Hui-Ming, 2014, pp.40-41). Eighteen categories of food were identified: grains, fruits, meat and pastries, etc. To increase the representativeness in the statistics, the same type of food items from different brands or manufacturers were mixed for sampling, and samples of similar nature were calculated together to get an average value. After the procedures of categorizing, sampling, processing, measuring and averaging, the unique characteristics of individual food items have been crushed and their differences left behind; they are presented as theoretical combinations of standardized nutrients in various proportions. Unlike wine tasting which focuses on the terroir, climate, producers and vintage, nutrition science only sees a normal food item produced in a generalized origin under a standard climate by an ordinary producer; everything that makes the food item unique is not to be known.

It should be noted that the interchangeability of nutrients is not even. As Scrinis (2013) indicates, nutritionism creates a “quantitative hierarchy of foods within

particular food categories” (Scrinis, 2013, p.78), which decides the priority when the game of interchanging food items is played. For instance, the latest version of the Dietary Guideline of Taiwan suggests that

In order to avoid taking fat that is bad for health, especially saturated fat, when choosing such food items, it is recommended to prioritize legumes, and then fish and seafood, eggs, poultry and lastly meat (HPA, 2018, p.14).

Saturated fatty acids are a deciding factor in deciding what to recommend.

Beans are the most recommended for their high unsaturated fat; fish comes second for the rich animal proteins and less fat than poultry and meat on average... Meat is ranked last because it generally contains more fat, which is bad for cardiovascular health. The fat content of poultry meat is less than that of livestock meat (HPA, 2018, pp.15-16).

Vegetable oil rich in unsaturated fat is... a healthier choice (HPA, 2018, p.25).

However, the criteria for “good” nutrients vary from time to time. In the United States, eggs were condemned in the early 1970s for their cholesterol content, but after experts acknowledged that dietary cholesterol was not a significant contributor to blood cholesterol levels, by the late 1990s, eggs reinvented as a nutrient-dense, functional food for its various nutritional benefits (Scrinis, 2013). In Taiwan, eggs were initially promoted as a cheap and convenient source of protein and other protective nutrients compared with beans, fish and meat for their higher protein density - price ratio. In the 2011 edition of the Dietary Guideline of Taiwan (HPA, 2011), the suggested order for protein sources was altered, as the fat in eggs was considered to increase the cholesterol level in the blood and the risks of cardiovascular diseases. Therefore, eggs were moved from the top of the list to the last, and the order became beans, fish, meat and eggs. In 2018, the order became beans, fish, eggs, and meat, as new scientific evidence showed the relevance between the consumption of eggs and the cholesterol level in blood or the risks of getting cardiovascular diseases was low, and the fat in eggs does not harm our body. It is suggested that eggs should be considered a better source of protein than meat (HPA, 2018).

Another example is milk products. According to Scrinis (2013), the 1980 Dietary Guidelines for Americans and the 1992 Food Guide Pyramid recommended the low-fat diet for its effect on reducing the risk of heart disease, cancer, and diabetes. However, around the mid-1990s, many studies suggested that consuming whole milk or whole-fat dairy products does not increase the risk of obesity or cardiovascular disease more than consuming low-fat milk or dairy products; many nutrition experts overturned the recommendation and acknowledged that the low-fat diet advice was oversimplified and could be harmful to public health (Scrinis, 2013, p.61). The low-fat recommendation dominating the American dietary guidelines in the 1980s and 1990s was also adopted by the Taiwanese government. Low fat was recommended in the first and second editions of the Dietary Guideline of Taiwan (HPA, 2011), but not anymore in the third edition (HPA, 2018). It was not until 2018 that the Health Promotion Administration issued a revision to the Dietary Guideline of Taiwan, changing the recommendation of “low-fat dairy foods” to “dairy foods”.

In the past, milk fat was considered more saturated, thus low-fat or skimmed milk was recommended. The circumstances changed when recent research showed that whole milk doesn't cause obesity or increase the risk of cardiovascular diseases than low fat milk, and that whole milk is beneficial to some health indicators. Therefore, the name of this food group is changed back to “milk” (HPA, 2018, p.3).

The discursive space of nutrition differs from other neighboring discourses. Firstly, this space is defined as a playground between the calorie cap and nutrient threshold, in which the dietitian advises on the substitution and combination of foods according to a set of defined rules, encouraging or discouraging, including or excluding specific foods at different times. In contrast to clinical medicine, which explores the patient's body, nutrition is non-tactile and even non-experiential. It is also different from the discourse of cookery. When designing a menu, the dietitian must first consider the health status of the eater and the recommended intake of nutrients. The chef, on the other hand, focuses first and foremost on the taste, such as which ingredients or wines go with which foods and in what order to maximize their flavor performance and balance. Like a doctor, a chef also needs sharp senses. In contrast to culinary arts, nutrition is senseless and only operates in the space of imperceptible risks;

every bit of extra calorie intake or deficit of nutrition forms a gap where risks accumulate that only a trained professional can reach, interpret the signs and advise accordingly.

6.4 The Dietitian and Nutritionist

Contrary to food education, the nutrition discourse does not consider senses as a reliable source of knowledge but as an obstacle to remove. As the sense of taste cannot be standardized, it is often seen as an obstacle to health that one should overcome with scientific guidance. Scrinis (2013) points out that mainstream nutrition science and practice do not tend to consider the body a useful or appropriate source of knowledge, indicating that “nutrition experts have at times been complicit with this undermining of the senses as a guide to food quality. The promotion of margarine over butter is an example of expert advice encouraging people to override their taste buds in order to eat more healthily” (Scrinis, 2013, p.435). This undermining of the senses could date back to the start of nutrition science. The American scientist who developed nutrition science claimed that “we are apt to be influenced too much by taste, that is, by the dictates of the palate... We need to observe our diet and its effects more carefully, and regulate appetite by reason” (Atwater, 1895, p.368). Mudry (2009) thinks that it is the implementation and use of reason and rationality that “shifted a discourse of food and eating from taste and experience to calculation and equation” (Mudry, 2009, p.42). In the analysis of the Dietary Guidelines, Mudry points out that one’s appetite, hunger and personal tastes are deemed irrational and unreliable in determining what one ought to eat (Mudry, 2009, p.52).

The implicit, and often explicit, assumptions in the USDA food guides were that an enumerated diet was somehow better than a diet that relied on the whims of human hunger, the ambiguity of the appetite, and the imprecision of the palate (Mudry, 2009, p.76).

The same emphasis appears in a meeting discussing the Dietitians Act in Taiwan, claiming that dietitians are responsible for promoting correct dietary patterns and nutritional knowledge to help the public develop the correct understanding that diet is not just about human nature and satisfying one’s hunger (Xie Ming-zhe, 1984,

P.128); the School Lunch and Food Workbook suggests that students should take a bit of the food they don't like, find out why and overcome their personal preferences (K-12 Education Administration, 2013, p.50); and the 8th-grade health and physical education textbook claims that correct knowledge about nutrition is not in our instinct: "Eating is the most natural behavior, however, without understanding nutrition and dietary guidelines... you won't get enough nutrients and stay healthy" (Kang Hsuan Publication, 2018a, p.56); The senses of smell and taste can only obstruct the way to health:

The teacher should point out that there are many factors affecting how we choose food, such as appearance, taste, color, and smell. We should pay attention to their influences. Take fried food as an example, they smell good and appetizing, but too much of it may lead to chronic diseases... guide students to choose and reconsider what to eat more or less in the six categories of food based on the principle of dietary balance (Kang Hsuan Publication, 2018b, p.20).

For the nutrition discourse, beneficial nutrients and risks of illness cannot be captured by the senses, and personal preferences are a problem to be solved rather than a means to better understand food. The belief that unseen nutrients determine whether one's diet increases or decreases one's risk of developing an unseen chronic disease, "creates a scenario where those who 'see the unseen' have authority to direct behaviour... nutritional scientism reinforces the need for experts to interpret and teach individuals and populations" (Mayes and Thompson, 2015, p.593). Scrinis (2008) also argues the nutritionism paradigm increases our dependence on nutritional experts as a source of knowledge about food; nutrition scientists, dieticians, and public health authorities are deemed to have access to the knowledge and capable of enlightening the lay public, offering an endless stream of advice on "what to eat" (Scrinis, 2008, p.46).

In the National Nutrition Surveys, dietitians in Taiwan used interviews, statistics, and modeling to analyze the eating habits and dietary patterns of the public to "instruct them to correctly eat" (Liu Huai-min, 2014, p.70). The public is deemed to lack proper knowledge about their diets, their health, and the risks of diseases, and

therefore should be instructed by experts like dietitians and nutritionists, who have been the authority in Taiwan for decades. Nutritionists' dominant position in Taiwan dates back to the first half of the 20th century; since the Japanese ruled period and the following 15 years of the U.S. Aid period, nutrition as a scientific domain has started to grow into a strong force with a comprehensive institutional network across Taiwan, and dietitians become the authority on dietary issues. Established in 1974, the Nutrition Society of Taiwan considered the legislation of the Dietitian Act as its first priority, and after ten years of efforts on the bill, the Dietitian Act was passed and announced in 1984 (Liu Hui-Ming, 2014, p.221). The act specifies the qualifications and training required, as well as the scope of practice. To be a dietitian, one has to pass a dietitian examination to hold a valid dietitian license. Practicing dietitians shall receive continuing education and submit documentary proof of completed continued education every six years to renew their practice license (Dietitian Act 2004). The act establishes the dietitians' authority in the public health arena and denies the voices of others.

After the legislation of the Dietitian Act, the Nutrition Society of Taiwan drafted the National Nutrition Act for complement (Chiang Shun-Nan, 2012) to further enhance dietitians' influence, claiming that "the Dietitian Act is the body, and the National Nutrition Act is the four wheels" (Liu Hui-Ming, 2014, p.227). To facilitate nutrition literacy and promote healthy diets among the public, dietitians are assigned the duty of leading the nutrition-relevant tasks at all levels. For instance, the School Health Act requires that

Schools that provide meals shall provide healthy, safe, and nutritionally balanced foods in compliance with the School Lunch Content and Nutrition Criteria determined by the central competent authority and with the Dietary Reference Intakes established by the central health competent authority, and shall provide nutrition education that is supervised and undertaken by dietitians (School Health Act 2015 Article 23).

Article 25 of the National Nutrition Act 2013 adds that each government agency shall have a nutrition specialist for national nutrition affairs; local authorities shall place several community dietitians to establish the community's healthy eating culture and

handle the nutrition and health affairs; and local government agencies shall also place some dietitians (National Nutrition Act 2013, p.50). For nutrition education, dietitians are supposed to be the only source for the correct and scientific knowledge of food and advice on healthy diets.

Unlike farmers, dietitians do not need to speak in their names. This is not to say that the personal experience, understanding, and interpretation of the knowledge do not matter, but compared with a farmer, a dietitian first speaks as a member of the professional group, as someone who possesses the knowledge of nutrition science. It is not the personality or lifestyle but the license or qualification that validates the speech, confirms the truth value of the statement, and grants access to the truth. A dietitian's background, experience, and life stories do not legitimize the speech. As Foucault points out,

the institutionalization of truth-telling practices in the form of a science (a normed, regulated, established science embodied in institutions) has no doubt been the other major reason for the disappearance of the theme of the true life as a philosophical question, as a problem of the conditions of access to the truth (Foucault, 2011, p.235).

To convey the objective, impersonal knowledge, nutritionists should not talk in their personal voices. The Ethical Rules for Dietitians 2009 specifically states that dietitians have to practice based on scientific methods and the latest information (Taiwan Dietitian Association, 2009); when dieticians speak or give their opinions in public, the content of their speech must be based on empirical evidence, experiences or research (Taiwan Dietitian Association, 2009). In the lesson plans, such knowledge about nutrition is usually provided as objective information which should be memorized but not discussed. For instance, the "Healthy Diet Expert" lesson plan introduces the six food groups as simple facts and instructions to follow:

Vegetables increase the intake of fibre and promote bowel movements. Three to five dishes per day (15 cm in diameter, measured with cooked vegetables)

Fruits provide vitamins and minerals that are different from vegetables... two to four servings per day (one serving is about the size of your fist) (Zou Pei-Xuan and Cai Yu-Han, 2014, p.5).

It should be noted that nutrition education is not always led by dietitians in Taiwan. In the 60's, farmers' associations were responsible for leading the nutrition education programme in their local areas. By combining nutrition courses with cookery courses, the farmers' associations taught housewives how to maximize nutrient intakes in the most economical way (Liu Hui-Ming, 2014, p.198-199). The agriculture agencies and organizations were the experts that taught the public how to have healthy diets and improve their nutrition statuses (Liu Hui-Ming, 2014, p.200-201). It was not until the establishment of the Department of Health in 1971 that the responsibility of promoting nutrition education was shared by agriculture and health agencies, and the farmers' associations were gradually replaced by dietitians working at hospitals afterward (Liu Hui-Ming, 2014, p.200). After the development of food education, however, the role of agriculture organizations seems to attract more attention, and the farmers now are deemed the experts who have access to the truth about food and are capable of offering advice on what to eat and even how to live. In Kaohsiung's food education textbook vol.3 that introduces milkfish, honey date, aiyu jelly, and litchi, the conversational stories happen among the students, fish farmers, fruit farmers, the aiyu store owner, and some of their families (Tsai and Liu, 2017). In the milkfish story, the fish farmers introduce the ways fish is farmed, how to pick and cook, as well as the nutrition values of milkfish:

... "vitamin A can help protect your vision and prevent night blindness, and vitamin D promotes skeletal development"... said Wang the fish farmer... "Fish also contain rich minerals, such as phosphorus, copper, and iodine; marine fish are especially rich in iodine and the main source of this mineral".

"Great! Fish farmers and consumers should learn from you, to know the procedure of farming, the ways of processing milkfish, and understand its nutrition values and the health benefits. Knowing the food we eat in depth also ensures food safety," said Grandpa Wang in an affirmative tone (Tsai and Liu, 2017, pp.24-25).

What nutrients are contained? How can they benefit my health? In the food education textbooks, this information is given by farmers or store owners but not dietitians, nutritionists, or doctors, the typical authorities that provide instructions on eating and decide what can be counted as a proper diet. Who knows food and should tell the truth? Food education discourse seems to rely more on those directly engaged in the production of food and encourages the public to seek advice from them for a better understanding of food. Several lesson plans, such as Lin Hung-Jin's (2014) "Garden Journalists", ask students to interview the farmers to understand how their food is produced and what is healthy to eat. The proposed bill of Food Education Basic Law stresses several times in the draft the importance of farmers and food workers as a source of food knowledge, saying that "one should learn the local agriculture and proper diets through the interaction with... farmers, food workers and other relevant actors" (Legislative Yuan, 2015). It encourages the public to actively engage with the farmer, attempting to

facilitate the communication between the producers and consumers... to express the appreciation for nature, soil, and food providers; it is through the gratitude and expressions that the new connections between human and nature, soil, farmers, and communities can be built (Legislative Yuan, 2015).

Dietitians are no longer the only ones allowed to teach the public what and how to eat. Instead, food producers are now given the authority to advise on healthy diets. It does not mean that dietitians and other certificated professionals lose their voices altogether in the arena, but farmers do gain a significant raise in their volume. Farmers were not deemed to have anything valuable to share with others. It is the formation of food education that grants farmers the place to talk and confirms their understanding of food, legitimizing the once illegitimate knowledge.

6.5 The paradoxical intersection

Based on the previous analysis of the measurement of food efficiency and the space of nutrition discourse, this section attempts to illustrate how nutrition education is discursively distinct from food education and yet at the same time seen as part of the policy, while the differences remain irreducible. In my previous analysis of the food

education discourse, I identified a set of practices based on personal sensory experience and direct engagement with food, by which real and fake are distinguished as the original and the reproduction, and the imperceptible is translated into perceptible. Nutrition, on the contrary, treats personal experience as obstacles that must be removed by scientific objectivity, for the nature of food is not perceptible but calculable. If food education evokes the image of a traditional handicraft workshop, the nutrition discourse is a modern factory production line, where food is broken down into usable nutritional ingredients and put into the machine that is the human body, acting as both its parts and fuel. To produce maximum health, the efficiency of food must be maximized through scientific management. How to minimize the loss of ingredients in the process? How to find a more cost-effective or available source of a nutrient? How to adjust the proportions of the same ingredients to increase production? To address these issues, food must first be standardized with experiments and statistics to reduce the deviation from individual food; it is the standardized food that needs to be understood. As the nutrition discourse adopted scientific standards from the beginning, the knowledge it produces is compatible with medical, chemical, and other related scientific knowledge, making it more readily available for general application and easily supported. In contrast to the nutrition knowledge industrial park which has been expanding the infrastructure on a large scale throughout society, the small workshops of food education do not have a centralized headquarters to collect raw materials for production but are built locally by different entities, dealing with specific localized experiences rather than the national averages. The deviations of food are not something to be removed, but the evidence of realness that needs to be known.

As Johnston and Baumann (2009) point out in the study of foodies, authenticity and realness are linked to handcraft. This insight seems to be applicable to knowledge about food. Compared with the information generated by mechanically dismantling food, a farmer picks what is considered non-systematic, holistic, artisanal knowledge of food by simply living their life and working in the field, and it is deemed closer to the nature of food. This localized, artisanal food knowledge is interwoven with the life and work experience of the farmer or vendor, as well as the local history, and just like the artisanally produced food, it is unable to circulate on a large scale and requires the learner to get close to the place where this knowledge is produced. The

subtle and unique traces of real food, its presence in the here and now, are as irreplaceable as the original artwork and closely linked to the life of the creator. It is, therefore, necessary to know the Shokunin who produce it and understand how their experiences and ideas relate to the work, which is deemed different from the mass-produced, indistinguishable food. In a way, the creator's work speaks for them, and the realness of food mirrors the realness of their life. The key to understanding food is deemed not scientific principles and statistics, but direct experience, personal involvement, fine sensibility and touch. It is about passing on the culinary experience, tracing the history, and celebrating Shokunin's skills and their passion for creativity and life. If nutritional knowledge is compared to a ready-to-wear garment, its fibers are synthesized by a specific discursive machine and produced in a number of predetermined sizes (e.g. gender, age), so one can put on it as long as they know their figures. In contrast, the knowledge of food education is hand-knitted. As the end product is inconsistent (which is deemed a synonym for real), one needs to try it on in person.

Despite the above divergences, nutrition education and food education are often considered two interchangeable concepts, as if the differences are only aspects of a deeper unison or pieces from the same puzzle. For instance, in an interview, Huei-Min L. Chin, the president of the Taiwan Dietitian Association, urged the government to take the school lunch program reform and nutrition education policy seriously, and therefore it is necessary to include food education into the school curriculum (Wong Wen-How, 2012). In the proposals of the National Nutrition Act, the trace of food education being imported into the scheme can also be found. From the 1998 version to the 2017 version of the National Nutrition Act proposal, the impact of food education becomes more and more notable in the bill.

First proposed in 1998, the bill of National Nutrition Act covers the major aspects of nutrition policy, including the regular execution of the Nutrition and Health Survey in Taiwan (NAHSIT), and the promotion of dietary guidelines and nutrition education. The first proposal states that its goal is to address the social issues of chronic diseases that are caused by unbalanced and unhealthy diets. To eliminate the risks of chronic conditions, it is necessary to regulate lifestyles and diets (National Nutrition Act 1998, p.40).

In the 2012 version, Japan's Food Education Basic Law was mentioned as a model to follow (National Nutrition Act 2012). In the 2015 version, the newly added articles started to emphasize the importance of personal experience and participation.

Article 16

Each agency and school shall proactively promote healthy eating education and encourage the public to participate in the events of healthy eating education, vegetables and fruits growing, and cooking.

Article 19

The agriculture authorities shall encourage food and agricultural industries to provide experiential activities, and cooperate with educational organizations and personnel concerned to promote healthy eating education (National Nutrition Act 2015, p.52).

In the latest version, Article 20 further adds that

Agricultural authorities shall encourage food companies and agricultural, forestry, fishery and animal husbandry industries to provide experiential education programs, and cooperate with education groups and personnel to promote healthy eating education (National Nutrition Act 2017, p.87).

In the bill, the dietitians are no longer the ones specified to teach the public how to eat healthily. Government agencies, schools, and food and agricultural industries are all qualified to give their advice on healthy diets. Second, vegetable growing and cooking activities, which do not show any direct link to nutrition, are now included in the bill, and those once deemed vital to nutrition education, such as nutrition facts label reading and weight control, are no longer specifically highlighted in the proposal. It seems that nutrition education and food education are mixing or compromising with each other in the recent proposals for the National Nutrition Act. The nutrition surveys and food composition database are still the foundation of making nutrition improvement plans and promoting nutrition education, yet the qualification of providing advice on a healthy diet is no longer exclusive to trained

professionals. Not only do nutrition scientists, dietitians, and public health authorities have their voices in the arena, but so do the producers and teachers.

Another case that shows the convergence is the school lunch program in Taiwan. Launched in 1973, the program aims to “ensure students’ nutritional intake meets the daily requirement, develop correct eating habits and maintain a healthy lifestyle” (Wong Yue-ching and Chang Yu-Jhen, 2012, p.134). Though the shortage of school dietitians hindered nutrition education in schools, the school lunch program is first and foremost the place for dietitians to speak about nutrition, but some recent developments seem to move the program further closer to food education. The Tainan City’s Self-Governance Ordinances for School Lunches (2012) aims to combine food education into school lunches for the purpose of promoting nutritional balance, developing correct eating habits, and enhancing their respect for food providers. In 2018, The Department of Education cooperates with Full Foods Foundation and launched the Food Education Classrooms and Modules (食育教室及食育模組) project, utilizing school lunches as an opportunity to teach the pupils the stories of foods they eat and combine aesthetic and intellectual experiences in the meals. Besides the rational management and scientific information from nutrition education, the stories and aesthetic experience from food education also come into play in the once dietitian-dominated field.

Conversely, food education also includes nutritional concepts. In the Kaohsiung food education textbooks, the nutritional values of local foods are still part of the curriculum. It should be reiterated that nutrition and food education are not compatible discursively. On this premise, I try to argue that what links them is not so much a unity of the discursive object as a strategic linkage that is facilitated by the overlapping regulatory objectives and the investment collectively made on the level of communities at roughly the same time. It is therefore a strategic alliance of the two discourses to achieve economies of scale, which should not be mistaken for intrinsic compatibility. In broad terms, junk food is a substandard and defective product that does not meet the nutrition discourse’s specifications, while fake food is a reproduction of a handmade product that is considered by the food education discourse to lack authentic ingredients; the two are eliminated by different standards.

In practice, however, what the dietary guidelines and regulatory policies oppose are both junk and fake; processed food products are both weirdly shaped pieces difficult to fit into the plate due to their low nutrient density, and contaminants that blur the boundaries between simulated flavors and original ones. For both nutrition and food education, the consumption of these foods is to be reduced and eliminated if possible. The distinct discursive differences therefore are compromised by this overlap at the regulatory level. This is the undifferentiated gray area, the intersection of two risks, where latent chronic diseases and invisible toxins form a blurred, hard-to-locate area, where substandard, low nutrient-density junk food and simulated food become synonymous, and where one can imagine a universal discourse: Since nutrition and food education both oppose processed food, they must have a common basis of truth that will eventually lead people to a complete understanding of food. Second, the alliance may also be attributed to their investment in the community. Rather than creating specific, closed institutions to respond to the issues they identified, such as laboratories, hospitals, or classrooms, both nutrition and food education are now attempting to create local networks in communities.

The authenticity of real food is defined by the food education discourse to be accessible only locally in a relatively limited geographical or social area. But how, specifically, should this scope be defined in practical terms? The Food Education Basic Law defines the scope as the community.

The Food Education Basic Law recommends that each region should formulate a specific "local food and agriculture education action plan" with reference to local characteristics, and implement it in a community-building manner, with different policies and indicators established based on local characteristics (Food Education Basic Law 20160316, p.71).

At roughly the same time, the community officially became the focus of the nutrition policy in Taiwan. Before, the nutrition discourse had focused on two separate ends of the spectrum: the individual patient's nutritional status and the nationwide nutritional status (Liu Hui-Ming, 2014), while the middle ground was left behind. The introduction of the community-centered approach to the nutrition policy filled this void and, more importantly, brought it closer to the very foundation of the nutrition

discourse for its independence from the medical discourse: everyday life with risks lying beneath. In my earlier discussion of nutrition and medicine, I pointed out that medicine distinguishes between health and illness, between the space of normal life and that of treatment. While emphasizing its focus on preventing the risks of illness in everyday life, in practice, nutrition operates at two other levels: on the one hand, it intervenes in an individual's dietary behavior in the hospital, a place that is the opposite to everyday life; on the other, it monitors the national health curves through surveys and seeks to improve it. There is a rupture between the nutrition discourse's foundation and its discursive practice. This is likely to change with the introduction of community nutrition by the National Nutrition Act, which required local authorities to designate nutrition-related professionals to assist with the promotion of nutrition and healthy diets in the community. Although the bill was not passed, the government adopted this measure. The Health Promotion Administration (HPA) first piloted a community nutrition education scheme in 2017, and in 2018 it advocated that all counties and cities establish "community nutrition promotion centers" to encourage dietitians to go into the community and provide professional services, analyze, monitor and assess local nutrition issues, establish community nutrition education programmes to educate residents about community nutrition issues and help people develop a correct concept of healthy diet and lifestyle (HPA, 2018).

This shift points to the possibility of a new aspect of nutritional knowledge. It is neither the analysis of the biochemical effects of individual nutrients in the laboratory, nor the design of diets for patients in hospitals to improve their physiological indicators, nor a national nutrition and health survey that attempts to measure the statistical averages of the entire population. Community nutrition maintains closer proximity to everyday life in a place defined by administrative and geographical boundaries. The individual is not entirely a faceless person or one of the values that simply need to be averaged, but rather an inhabitant whose life is more visible. It does not aim to propose one approach that fits all, but to recognize local differences and to adapt the knowledge and measures accordingly. The major difference is that community nutrition does not operate in isolation, whether through spatial separation or mathematical abstraction, but rather observes and manages the local issues in the natural environment where everyday life and risks exist. It should be noted that the concept of community nutrition has existed for a long time, but in Taiwan, it has

only been theoretically explored, and the communitization of nutrition practices did not emerge until after the prevalence of the food education discourse. It may be just a coincidence of timing, but discursively speaking, one might ask whether the nutrition discourse has sufficient resources to open up this new space outside of hospitals on its own without the food education discourse that also promotes a more localized approach to food. When there were only hospital nutrition and national nutrition surveys, was it possible for the two discourses to ally?

It is argued that the introduction of community nutrition made this alliance more possible, and food education's proposal of understanding food in daily life might also make nutrition's investment in the community more justifiable; food education does not undermine the authority of nutrition or break its hegemony while seeking other ways of knowing food but rather provides the nutrition discourse with an explorable space that allows it to be further independent of medicine. The two discourses are partially interconnected and permeated through common policy targets, strategic objectives and investment in the community. Nutrition uses this opportunity to differentiate itself further from medicine. Food education, on the other hand, can develop more effectively and faster by mobilizing the established legitimacy, infrastructure and resources of nutrition rather than rebuilding the network all by itself. For example, as analyzed earlier, by re-problematizing chronic diseases as a result of the impaired sense of taste rather than an imbalance in nutrition, food education shares the legitimacy of the nutrition discourse, while still having the space to develop its practices and measures.

Chapter 7 Discussion and Conclusion

This chapter outlines the results of my analysis of food education discourse and indicates the contributions, limits, and suggested possible directions for future research. As the majority of studies on food education see it as a tool to enhance public health or raise food safety awareness, the questions asked the most are how to better educate the public about the benefits of balanced diets, local foods, or organic agriculture, and the public are expected to embrace “correct” knowledge and accordingly change their values and behaviors. These studies, however, do not seem to recognize the fact that food education is not a clear, consistent, or coherent discourse. Rather, it is formed with intertwining threads of thoughts, ideas, and metaphors that constitute the unique context where the problematization of food takes place. Only by examining the truth procedures and practices of food education can we have a clearer understanding of its discursive formation, the knowledge produced, and the subject position constructed.

Adopting the Foucauldian approach of discourse analysis, this research examines food education lesson plans, bills and news articles, arguing that the formation of food education discourse is based on the notion of the “original taste.” First, Chapter 4 examines the development of Taiwan’s food education in a broader context and describes how food education discourse problematizes the tastes of real/fake foods. which includes two aspects: the loss of food’s “original” taste, and the eater’s inability to properly taste food. By reviewing the media reports on food additives, I argue that the loss of the original taste is deemed to be the result of the prevalence of artificial flavorings as replicas of the original, and then point out that the use of artificial flavorings is considered the reason people lose the ability to identify the differences between real and fake foods with their tongues. As the fakeness of food is interpreted as a sensual object that can be identified by the eater’s senses of smell and taste, it entails the training of taste and the requirement for more direct experience with food, both of which constitute a significant part of Taiwan’s food education policies and projects. At the end of this chapter, I applied Benjamin’s (2008) theory about artworks and their mechanical reproductions to point out that real foods are in fact seen as the original artwork or craftwork that tastes of its

essence and fake foods the mechanical reproduction of the authentic taste, the simulation of real.

The analysis of the training of taste in Chapter 4 responds to the proposals of the sensual-practical approach to food (Scrinis, 2013) or a discourse of taste (Mudry, 2009) as an alternative approach to food. Scrinis (2013) suggested that our palates "need to be trained or reeducated through the practices of growing, preparing, and cooking food to better understand and appreciate the flavors of the foods they consider to be of good quality" (Scrinis, 2013, p.437); it is now the reality. By illustrating how the sense of taste is problematized in the specific context, this study indicates that tasting as the practice of verification is tightly connected to the discursive object, which can only be revealed by discourse analysis.

Chapter 5 continues with the notion of real food as artwork or craftwork illustrated in the last chapter and argues that this identification of "real" leads to the formation of the speaking subject for food education. Contrary to faceless flavorings that are mass-produced by machines, real food is something made/grown by an identifiable person with their own touch. Therefore, it takes some understanding of the creator - those who produce the food - to appreciate their artworks, as their personal experiences, lives, histories and beliefs are connected to the very essence of their artworks - the real foods. Real lives lead to real food, and as vegetables and fruits are deemed the representative of real food, farmers as the producer get to enter the food education discourse as a speaking subject that is suddenly qualified to teach the public about food. The formation of the other subject position is then discussed - the traditional market vendor, who is also once deemed uneducated yet now in possession of forgotten or undermined knowledge about food and dietary culture. It is argued that the association between the marketplace and everyday life allows the vendor to enter the discursive field of food education and speak about food. They are considered the experts of daily food - real food by implication, who can share their now deemed valuable techniques and experiences, which once were rejected as non-scientific. Both the farmer and vendor are respected as shokunin (職人), which implies the recognition of their craftsmanship, experiences, skills, and professional knowledges. With the analyses of the notion of "original taste" in Chapter 4, the

notion of "honesty" and craftsmanship in Chapter 5, this study explains why "real food" is not an ideology (Scrini, 2013) or an abstract concept but a discursive object that is formed by the physical practice of tasting and fixed by its connection to the discursive subject, which could contribute to the understanding of this research topic.

The analysis in Chapter 5 indicates the change in the speaking subject position in a broader sense. From the institutionalized position of dietitians to farmers who are qualified for their close connection with food, truthfulness, and honesty, and to the vendors that bring food to our everyday lives, the possibilities of speaking about food increase progressively. Dietitians are limited by the system of certification, review, and assessment, and a nutritional statement about food has to be in line with the theories and made by a certificated person; a statement of a farmer can only be seen as genuine and real when he or she commits to certain lifestyles, values, and mode of production; lastly, the vendors are allowed into the field for their common-sense, everyday knowledge of food, requiring no certificate, assessment, or serious commitment. The formation of these positions is more a result of the different discursive rules that are applied, but not conflicts of interests or ideologies.

From being seen as menial laborers to shokunin, the transition of the farmer and the vendor's position indicates a re-evaluation of the criteria of the legitimacy of knowledge, as well as a shift in the measurement of the nature of food, which is most evident between food education and nutrition education. In contrast to nutrition science which systematically mines for the truths hidden in depth and cannot be directly grasped and understood, food education points to some truths that are distributed at the surface of experience, easily accessible but previously ignored. The common-sense knowledge of food is directly compatible with everyday life experience. It can be hand-picked by laypeople without the need for professional equipment or systematic procedures and can be easily distributed without further processing. Nutrition, in contrast, requires heavy equipment such as laboratories and national surveys to collect data, which then have to be explained by experts, as well as a large-scale infrastructure such as a comprehensive food labeling system to properly function.

For comparison, Chapter 6 analyzes the problematization, object, and subject position of the nutrition discourse to clarify the differences discursively between food education and nutrition education, which are often seen as synonyms. First, the nutrition discourse adopts a financial accounting framework and problematizes food in the language of finance to estimate the cost and benefit of a diet. The consumption of food is compared to the deposit and expenditure of nutrients which require bookkeeping to make sure the cost of and revenue of nutrient intake are within the budget set by the dietitian. Different foods can be converted into nutritional equivalents, and the only difference is the cost-effectiveness, such as superfood and junk food, so whether the food is handmade or machine-produced is not a major concern for the nutrition discourse. The nutrition discourse adopts the pursuit of objective knowledge in natural science, treating food as a set of ingredients with specific physiological effects that must be consumed effectively according to mechanisms revealed by physiological and medical theories. For it, the distinction between true and false based on taste and everyday life experience proposed by food education is not a way to know food but a barrier. Finally, the subject position formed in the nutrition discourse is also based on the criteria of objectivity, and it is the systematic education and certification process rather than the individual's sincere lifestyle that gives legitimacy to the voice of the dietitian. In Chapter 6, I then point out that with the differences between nutrition and food education in terms of the discursive formation, the two discourses are seen as a unity, which might result from the fact that their discursive objects coincide with regulations imposed indiscriminately, and both discourses invest in the infrastructure at the community level to generate localized knowledge. However, this should be seen as a temporary and local alliance under certain conditions and a strategic reciprocity that allows them to appropriate resources and regulate their objects more efficiently.

This study illuminates how a Foucaultian approach to discourse helps make sense of the emergence of food education in Taiwan, as well as the proposal of food education as a solution to food safety issues, which could be addressed with the use of technology or tighter control; it also demonstrates the ways multiple issues of concern to sociology of food are related at the discursive level. Starting from the distinction between real and fake food that food education raises as an issue to address, I illustrated how the difference is understood in the framework of

original/replica, explained how the original taste of food and the personal stories of the producer become legit food knowledge that needs to be learned, and indicated that the relationship between individuals and food is not to be understood in terms of biochemistry, but rather in terms of the senses of touch and taste. It is argued that these connections could only or better be illustrated by applying Foucault's approach to discourse analysis, as this method is designed to explore the problematization-discursive object-subject position network.

This chapter attempts to further extend the discussion of two fundamental discursive grounds on which Taiwan's food education develops its knowledge and the notion of "real food" - the possibility to understand food through the sense of taste, and the common sense from our everyday life experience. Both of them recognize a direct approach to the knowledge of food, which significantly differs from the hierarchy of human senses and the system of professions and forms the unique field food education occupies. The notion of the original taste and the use of common sense share an assumption in common, that the realness of food can be accessed intuitively. Such an assumption challenges the theory of the hierarchy of the senses, which values the distant senses over the lower bodily senses. As real food is identified by the original taste fake food lacks, the realness of food is deemed sensible to the tongue but not the eyes, which may be easily fooled by the picture on the package. The sense of taste, which is usually closely associated with bodily pleasure and disorders, is granted access to the truth in food education discourse.

By applying Benjamin's (2008) discussion on the mechanical reproduction of the work of art as the framework, I compare the reproduction of sight with that of tastes and argue that food education overturns the relationship between senses and reality suggested by the hierarchy of senses, implying that taste, one of the lower senses, is deemed closer to the real than the higher sense of sight. I then discuss how the subject position is defined by the distinction of the original work from the reproduction. Following the examination of the sense of taste, this chapter then explains the other criterium that defines the knowledge of food education - the criterium of commonness or ordinariness, as the realness is deemed perceptible to the ordinary; there is nothing exceptional or unique about real food that is beyond perception, and the emphasis should be put on common-sense knowledge in

everyday life over scientific or professional knowledge in the institutional settings. The end of this chapter suggests how the analysis of food education discourse could be deepened and furthered by the examination of other food discourses, such as culinary education and food writing; the comparison with other countries' food education initiatives could also enhance our understanding of the discursive conditions of food education, the problematization procedure, and the relationship between senses and truth.

7.1 The Reproduction of Sight, Taste, and Reality

In Chapter Four and Chapter Five, I referenced Benjamin's (2008) analysis of the mechanical reproduction of the work of art to explain the relationship between real and fake food without any further discussion of the differences between image and taste, as well as how their reproductions relate to the original reality. This section compares the reproduction of sight with that of tastes, indicates the differences between the two senses, and argues that food education does not seem to acknowledge the relationship between senses and reality proposed by the hierarchy of senses. The theory of the hierarchy of senses suggests that rationality can only be achieved by keeping a distance from the object, thus the eyes and ears are deemed more objective and intellectual. Food education, however, seems to have the principle reversed and implies that taste, one of the lower senses, is closer to the truth of food than vision, which is one of the distant senses that are considered superior to the bodily senses.

Besides the rare cases, the relationship of the sight and the photos, the reproduction of the sight, is defined as the whole and part of reality. The difference between what the viewer can see in a picture of the object or in the object itself is merely the level of reality that is available; a picture might only be able to grasp a portion of the reality that can be given to the eyes in whole. But the relationship could also be reversed. Often the camera is deemed to be capable of seeing things in more detail, and the photos reveal a higher level of reality than what can be perceived by the bare eyes, as this machine has sharper sight that captures the slightest shaft of light, preserves anything that happens in a flash, and reach an order that is not available for natural vision to perceive, while the bared eyes can only observe and process relatively

limited reality. Therefore, the photographer's work is to show to the viewers "what their own unseeing eyes had missed" (Sontag, 2005, p.74).

The superiority of the camera derives from its mechanism of optical imagery that guarantees the objectivity and truth value of the pictures. Bared eyes may be misled or interrupted by the viewer's emotions, and physical and mental conditions, but the machine does not; it simply copies what is presented in front of it through its automatic optical-chemical procedure of imaging. "The earliest photographers talked as if the camera were a copying machine; as if, while people operate cameras, it is the camera that sees" (Sontag, 2005, p.67). Since the camera "recorded a 'natural' image; that is, an image which comes into being 'by the agency of Light alone, without any aid whatever from the artist's pencil' (Sontag, 2005, p.68), it is impersonal. By excluding the influence of personal bias, photography becomes a reliable source for proof.

Photographs furnish evidence. Something we hear about, but doubt, seems proven when we're shown a photograph of it. In one version of its utility, the camera record incriminates... the camera record justifies. A photograph passes for incontrovertible proof that a given thing happened (Sontag, 2005, p.3).

A photo is deemed to have a more innocent, accurate, and inseparable relation with reality; it is "never distinguished from its referent (from what it represents) ... it is as if the Photograph always carries its referent with itself" (Barthes, 1981, p.5). The photograph and the reality are "laminated objects whose two leaves cannot be separated without destroying them both" (Barthes, 1981, p.6), and therefore every photograph itself is authentication, a certificate of presence (Barthes, 1981, p.87). Unlike a painting, a photograph is not just an image or an interpretation of reality; "it is a trace, something directly stenciled off the real... a material vestige of its subject" (Sontag, 2005, p.120) and "a homage to the subject... an extension of that subject" (Sontag, 2005, p.121). This argument might be equally applicable to the reproduction of sounds, which is also generally considered a certificate of presence and a trace of the real that is inseparable from reality. Both the reproduction of the sight and sound follow the mechanism of automatic chemical procedure that "copies" the image or the sound, which guarantees the objectivity and truth value of the product. However,

this is not the case for the reproduction of the taste. The flavoring, the facsimile of the original taste, on the contrary, always refers to the lack or damage of the real. This discrepancy might result from the different mechanisms of reproduction that are deployed, as the simulation of tastes cannot be directly stenciled off the real but requires the flavorist's blending of chemicals and extracts to achieve a certain flavor profile for one specific food. As a result, the reproduction of tastes does not have the innocent and accurate relation with reality as photography does; it is neither a certificate of presence nor a vestige of the subject. More importantly, the existence of artificially reproduced taste is to cover the original subject that is absent, which is opposed to photography that aims to uncover the original subject that is hidden or ignored: "All that photography's program of realism actually implies is the belief that reality is hidden. And, being hidden, is something to be unveiled. Whatever the camera records is a disclosure" (Sontag, 2005, p.94).

Photographs and flavorings are opposite in several aspects. One unveils the real that is visible to the eyes, while the other conceals the absence of the real. The photographed subject's reality seems to never be exhausted; every perspective or composition change brings out a bit more about the subject that is not revealed to the viewer. Photography as a way to reproduce the real proliferates reality. The reproduction of tastes, on the contrary, only attenuates the real; any attempt to simulate a taste can never reach the same level of reality possessed by the original, as the mechanism cannot be automated and always involves manual intervention. Lastly, the machine that captures light sees the subject more sharply and accurately, so the reproduced picture reveals more details of reality to the unseeing eyes of the viewer. Even the most observant eyes cannot compete with the camera. The machine that captures tastes, however, can only function at the cost of impairing the original, and a trained tongue recognizes the subtleties between tastes that cannot be fully analyzed by the machine. In short, visual perception might cheat and mislead you from the real, while mechanical reproduction provides a more reliable foundation to see; the sense of taste, in contrast, is considered less an obstacle to the real but the bedrock one can rely on.

Maybe it is just a temporary setback due to technical underdevelopment. Someday a machine that can perfectly copy a taste would be as prevalent as a camera, capable

of capturing all the subtleties that the most talented food critics cannot identify, and restaurants would prohibit taking the tastes, just like museums prohibit photo-taking of the exhibited pieces. Such an imaginary machine could change the discursive formation, practices, and regulations, and the arguments between painting and photography would be repeated between culinary art and the reproduction of tastes. The distinction between real and fake marked by the notion of the “original taste” might blur, and since the original taste could be perfectly reproduced, the authority and “aura” would fade away with the mass production of the “original”. The bottom line is that with the conditions changed, whether it is technical or social, the concepts or practices applied by the truth procedure may not be able to keep their validity. The “real” can only take shape and be understood on the discursive conditions that make its existence possible.

The above discussion on artificial flavors as the reproduction of the original taste leads us to a more general question about the relationship between the sense of taste and reality. In contrast with the vision, the relations between the tongue and reality have seldom triggered heated debates. This might be a result of the historical disdain for the “lower” senses as an obstacle to truth. Since Aristotle’s works, the idea of the “hierarchy of the senses” has been widely shared and fundamentally influenced how the senses are valued to date (Hoffmann, 2016). The hierarchy of the senses places taste, touch, and smell below the senses of sight and hearing (Ferguson, 2011, p.371), which was theoretically justified by the place each sensory organ physically occupied on the body.

Most senses were “located” on the head, considered as the seat of reason and of the soul... The eyes were the highest organs situated on the head, and the closest to the brain; they were thus considered the noblest... taste was fully felt when the food descended from the mouth into the stomach, a much less noble part than the head (Hoffmann, 2016, p.84).

The higher senses of sight and hearing are conceived as intimately connected with the mind and with the soul” (Hoffmann, 2016) and in association with the intellectual knowledge of reality (Ferguson, 2011, p.374). As Breton indicates,

Vision is associated with knowledge. "I see" is synonymous with "I understand." Something seen "with your own eyes" is incontestable... The verb "to see" comes from the Latin videre, originating in the Indo-European word veda, which means "I know"... Ignorance, on the other hand, draws on metaphors evoking loss of vision (Breton, 2016, p.255).

As a result, the two senses are elevated in the hierarchy of the senses and seen as "the means by which the civilized person apprehends the world" (Classen, 1999, p.273). The lower senses of taste and touch, on the contrary, occupied positions of animality that are closely associated with bodily pleasure and disorders (Hoffmann, 2019, p.134) and understood as "natural" or "bodily" senses that are irrational and "intimately acquainted with incorrigible pleasure" (Korsmeyer, 2002, p.67), which "civilization must needs repress more than cultivate" (Classen, 1999, p.273), as the lower senses may tempt one to indulge in the bodily pleasure that impedes the quest for truth. "The inescapable connection with the body and functions that modern societies have come to see as shameful reinforces the lowly placement of taste in the hierarchy of the senses of the Western philosophical tradition" (Ferguson, 2011, p. 374).

Classen (1999) and Fendler (2012) argue that the disdain for the lower senses results in the absence of taste in the school curriculum. Classen thinks that the sense of taste is considered to be unable to provide "ways to wisdom", but only a channel for pleasure (Classen, 1999, p.271). To guarantee that the students in the school are free from the lure, any kind of food should be removed from the classroom.

In the West the sense of taste is often implicitly presented as opposed to the acquisition of knowledge. Food is carefully kept out of the classroom. It is thought that a child's craving for gustatory delights must be suppressed in favour of an emphasis on acquiring visual knowledge. Within the school, food, in the form of snacks at recess or meals at lunch time, provides a break from studying (Classen, 1999, p.273).

Fendler (2012) also points out that gustatory taste has never been included in

curricula of modern Western schooling, and when the sense of taste is discussed in the textbooks, it is often “reduced to anatomical descriptions, namely the physiology of the tongue” (Fendler, 2012, p.76). It is seen as a subject that is not proper for school: “There are no curricular standards that require students to be able to distinguish between the taste of fresh food and that of stale food; no one has developed educational assessments of flavor literacy” (Fendler, 2012, p.66).

The most important sense for acquiring knowledge has been vision, as other senses are often regarded as invalid sources of knowledge (Fendler, 2012, p.68). This is because of the distance vision can provide. With touch and taste, the object appears to be in direct contact with the body, while sight and hearing do not require any intimacy with the object. The distance kept between the sensory organ and the object guarantees detachment and objectivity.

Objectivity implies depersonalization, which is typically accomplished through detachment and mediation. A “personal experience” is not acceptable evidence in a scientific worldview that purports to value objectivity; therefore taste, as a direct proximal sense, has become less valued for education in the historical context of modern science (Fendler, 2012, p.74).

However, food education seems to think otherwise, suggesting that taste as a direct proximal sense is actually valuable for education. To taste is to know, as Breton points out, “the word *saveur* (flavor), linked to *sapere* (*savoir*, in French, ‘to know,’ in English), is used in Middle French (1440–1475) as meaning ‘knowledge of something’” (Breton, 2016, p.256). In the name of reconnecting with food and nature, the sense of taste is legalized and included in the curricula of Taiwan’s elementary and high schools, not as a topic of physiology but as a valid source of knowledge. Food education overturns the principle of depersonalization and detachment set by the hierarchy of senses, requiring that the distance to food be shortened. The establishment of school farms and city gardens should be seen as the application of this new principle: intimacy leads to reality. The distant mechanism of light is deemed not sufficient to provide a complete view of food; in some instances, eyes should even be covered for the lower senses to work better. The classic blind-tasting activity, which asks the students to wear eye masks and identify the food by its smell

and taste, embodies the most determined objection to the privileged status of sight. Only when light is shaded can one better taste and know the object.

What is argued here is not that the sense of taste is essentially superior to sight, or that the lower senses have been wrongly despised, or that one can only really know and achieve true rationality with all the senses. This research does not consider itself as what Drobnick (2006) terms “olfactocentrism,” a calculated counterpoint to the hierarchy of the senses, but to review the relations between the senses and reality in the regulations deployed and concepts applied; it is to examine how the senses are affected, activated, and manipulated as a discursive object by institutions; it is to illustrate the non-linear and changeful relations between the senses and knowledge. When I say that food education emphasizes the importance of knowing through tasting, it does not suggest that this is the only correct and effective approach to learning about food, or that the hierarchy of the senses and the way teachers taught food were wrong, but simply points out that there is a different procedure of problematization, which makes a different relation between the sense of taste and knowledge possible. My aim is not to prove the hierarchy of the senses is outdated and obsolete but to say that the conditions in the food education discourse make it possible to establish the link between the sense of taste and reality. Once the conditions change, the relationship might change with it.

Further, these conditions might be local with their limited effective range in a certain period, allowing different even contrary relations to coexist. For instance, the sense of sight remains superior over the lower senses in nutrition-based policies, especially the prohibition of junk food which shares the same assumption with the hierarchy of the senses that the sense of taste could tempt one to indulge in the gustatory pleasure that impedes the path to rationality. It is especially dangerous when junk food is “deliberately designed” by food and drink companies to create addictive food products and whet the consumer’s appetite (Moss, 2013). To restrain the “animal-like” sense of taste, the approach taken is through the management of sight, the higher and more rational sense, to suppress the lower sense that is closely associated with bodily pleasure. The restriction imposed on junk food prohibits any TV advertising targeting children under the age of 12, and the ban on the use of cartoon characters on the packaging is also under discussion. Besides, the Health

Education textbooks repeatedly remind the students that the smells and tastes of certain foods might be appetizing and lure them into making the wrong choice, but one cannot trust these senses and needs to follow the diet guidelines to choose the diet. Since the nutrients do not have any specific tastes that can be identified, their existence can only be measured by instruments and marked by labeling. The nutrition facts label and the blind tasting of food thus represent two contrasting principles for knowing food: one trusts sight over the tongue, and one shades the eyes to better taste.

7.2 Common and Sensible Reality

Besides the notion of original taste and its implication that the sense of taste leads to the knowledge of real food, ordinariness forms the other foundation of the discourse of real food. We could say that the notion of real food relies on two senses: the sense of taste and common sense. The principle of ordinariness assumes that reality is common, ordinary, mundane, and open to the average people. Therefore, real food is common food that tastes “plain” and less appetizing than fake one, and those who really know about real food are not scientists but everyday characters, who do not receive professional training but are in contact with food on a daily basis. If a professionalized system (i.e., nutrition science) aims to establish itself as a “higher” knowledge over the common-sense knowledge, the principle of ordinariness would be to put everything on the same horizontal plane and examine the truth value according to their distance from food. The tongue that is in direct contact with food therefore is superior to the eyes, and those who grow, process, and deal with food with their hands know food better than laboratory scientists or hospital dietitians. Scientific knowledge, including nutrition, is achieved by abstracting the knowledge of concrete phenomena from the situation in which they are known with the use of experimental controls and designs. Food education, however, pursues a different kind of knowledge: to know the real is not about abstracting the truth from the concrete existence but reducing the distance and obstacles of the knowing process, and keeping the concrete object where they are, as a long, complicated process is prone to distortion.

This requirement that one should keep the object of knowledge within reach and

think in concrete ways rather than abstract thought forms a common-sense type of positivism, which “defines itself generally as the opposite of an ordered and conscious knowledge complex... common sense is perceived as given from immediate experience” (Wagner and Hayes, 2005, p.29). This common-sense positivism sticks to the principle that knowledge can only stem from human experience, but in a more restricted sense: the legitimate knowledge for this common-sense positivism should be explainable by the sensory experience, if not, the Imperceptible must be translated into perceptible, as reality is deemed not something that can be known with the use of instruments and experiments, but what can be directly sensed in the everyday life. It is not only a rejection of metaphysics but also a rejection of science that does not “make sense”. This research provides an example of how the imperceptible risks of food additives are translated into the perceptible form, making the knowledge of real/fake food “sensible”.

Beck (1992) indicates that the contamination of food, among the other forms of risk, generally remains invisible and initially only exists in terms of the knowledge about them (Beck, 1992, p. 23). This is also the case for chronic diseases. Without scientific theories, experiments and instruments, such invisible and uninterpretable risks are beyond personal perception and experience.

One no longer ascends merely from personal experience to general judgments, but rather general knowledge devoid of personal experience becomes the central determinant of personal experience... [W]e are dealing not with ‘second-hand experience’, in risk consciousness, but with ‘second-hand non-experience’. Furthermore, ultimately no one can know about risks, so long as to know means to have consciously experienced (Beck, 1992, p. 72).

Different from hazards that were perceptible to the senses, “the risks today escape perception and are localized in the sphere of physical and chemical formulas (e.g., toxins in foodstuffs or the nuclear threat)” (Beck, 1992, p.21). Further, those risks that escape perceptibility “no longer coincide with the unreal, but can instead even possess a higher degree of hazardous reality” (Beck, 1992, p.44). As the intangibility of risks of chronic diseases “that only comes to consciousness in scientized thought cannot be directly related to primary experience” (Beck, 1992, p. 52), it is necessary

for dietitians to intervene and interpret the risks. As Welch et al. point out, “discourses of risk and nutrition, often associated with health and weight, are entwined in and through both school pedagogies and children’s popular culture” (Welch, McMahon and Wright, 2012, p.714). However, by introducing the notion of “original taste” and the taste of additives to put what escapes perceptibility back into the sensorial world, food’s fakeness becomes visible or interpretable. Inedibility, once only perceivable with theories, experiments and instruments, comes to be interpreted as a sensually experiential object, and the tasting of foods is used to provide a base of knowledge capturing what once escaped personal experience. Notions of the original taste of food and food education should be considered as an attempt to place general knowledge back into the realm of personal experience, to change “second-hand non-experience” into “first-hand experience”, where food is known by being consciously experienced. In short, the move is to translate the unknown into the known.

The food education discourse claims that with proper training and practice, one can become able to taste the invisible fakeness of food and avoid the risk of consuming inedible chemicals. This is a system of knowledge that is developed in parallel to nutritional science or medicine, which focuses on the biochemical level of food and entails the involvement of scientific help. The nutrition-based episteme treats the eater as unknowledgeable about themselves and places them in the position of being told how and what to eat by an expert (Scrinis, 2008). In contrast with nutrition science, food education discourse considers the eaters not so much “unknowledgeable” as “inexperienced”. As argued earlier, food education establishes itself on embodied experiences and sees food primarily as a sensual object but not something to be scientifically analyzed. Correspondingly, the farmer as the major speaking subject of food education is less of a knowledgeable professional who has exclusive access to truth than an experienced individual who knows how to live a real life in terms of the relationship with food. With the association between the object and subject, the farmer’s speech includes at least two aspects: annotation of the originality of food and the confession of the farmer’s life, both of which are used to confirm the realness of food without relying on a scientific system of measurement. From unknown to known, imperceptible to perceptible, the practice of tasting might be seen as a practice to manage the proliferated invisibility, uncertainty

and riskiness of food.

In the analysis of nutrition education, I point out that the language it uses is mathematic; the food, eater, and the risks of diseases are all abstracted and standardized to be managed in a numeric form: food categorized by the calories and the nutrients, and people by the gender, age, and weight. Food education, on the contrary, requires a direct, common language of everyday knowledge, which contrasts scientific knowledge and is in principle accessible to everyone (Wagner and Hayes, 2005).

Common-sense knowledge is an interpretation of the immediacy of experience that can be learned in common places, that people visit on a daily basis. The restaurants, markets, and stalls in the local communities therefore become critical sites to learn the knowledge of food: trivial, concrete, everyday-life knowledge. This lay knowledge does not reach the scientific threshold as nutrition science does, and may not form a unified system, but it is the ordinariness and personal everyday experience that are deemed truthful, reliable, and worth knowing. Surely, the distinction between common sense and professional knowledge is relative, as what could be defined as common sense changes with the context, but it might be fair to say that the complicated relations between nutrient intake and the risks of chronic diseases are beyond common sense. Both nutrients and risks are imperceptible; there is no way one could taste vitamins or protein or observe/hear/feel the increase/decrease of risks. By interpreting the risks of additives into sensible tastes, food education paves the way from the sense of taste to common sense. Though nutrition science and food safety consciousness still occupy a place in the discursive field, it is also evident that this common-sense knowledge has been granted a legitimate place in the arena of food policy in Taiwan.

7.3 Research Limitations and Suggestions

This section discusses the limitations posed by the methodology and the questions unable to answer and suggests three directions for future research to illustrate the broader discursive context around food education: a comprehensive analysis of the development of nutrition, the examination of culinary education or food writing, and

the comparison with sensory education discourses in other countries, so the formation of food education could be better located.

In Chapter 3, I point out that what FDA is trying to accomplish is to open up a field for the analysis of possible conditions for action. However, it is fair to say that FDA does not provide a straightforward answer to questions like "what can be done to make a difference?" or "does the difference make things better or worse?" After identifying the possible conditions for action, FDA cannot answer which might be a better option. This study does not directly tell people what they should learn about food, nor does it provide a standard for evaluating the strengths and weaknesses of nutrition, food education, or other food knowledge. In reviewing existing studies on nutrition and food education, I argue that food education should not be seen as a more holistic way of knowing food than nutrition, nor should it be hastily equated with nutrition, but rather its discursive formation needs to be examined. By analyzing the new approach of problematizing food, this study then pointed out the differences between food education and nutrition education at the discursive level, but the subsequent questions are: how can this study help to realize new possibilities for understanding food? More importantly, even if new ways of knowing food can be identified separately, what criteria should we use to determine what food knowledge is worth pursuing and beneficial? FDA is incapable of answering these questions.

Foucault once said that everything is dangerous:

My point is not that everything is bad, but that everything is dangerous... If everything is dangerous, then we always have something to do. So my position leads not to apathy but to a hyper- and pessimistic activism. I think that the ethico-political choice we have to make every day is to determine which is the main danger (Foucault, 1984, p.343).

Perhaps this also applies to our search for new possibilities for understanding food. Through FDA, we can only point to the existence of different possibilities but not the existence of safe pathways that can lead us to a better relationship with food. Everything is possible, but everything is also dangerous, and the trade-offs are not something that can be determined by the FDA.

Besides, there are other limitations that should be addressed. As document-based research, this study did not analyze the practice of teaching in the context and study how food education lesson plans were applied in schools. This is partly because I was trying to look for discursive connections at all possible levels and places, and observations of food education courses might not be able to provide the width and diversity of data that FDA requires. Focusing on the archives of documents, I believe, allows me to capture the very foundation of food education discourse, but it should be acknowledged that a further study of the teaching practice could be conducted to explore whether there are connections that are not revealed on paper.

When analyzing the discourse of nutrition education, this research only focuses on the National Nutrition Act, nutrition promotion policies, and textbooks that are the most relevant to food education in order to limit the research scope. For the purpose of comparing food education with nutrition education, a significant portion of the archives on the history of nutrition education was left unexamined and therefore questions unanswered: how was the notion of nutrition introduced into Taiwan? What problem was raised to be addressed? What kind of relation did this foreign theory have with the traditional folk knowledge of food? Before the institutionalization of nutrition education, what subject position was formed? A more comprehensive analysis of nutrition discourse might provide the necessary leads to understand the seemingly contrasting relation between food education and nutrition education, or to confirm that the mixture of both is caused by other non-discursive factors.

As a way of knowing and talking about food, food education is not developed in isolation but a network of connections with concepts, theories, initiatives or policies. But among all the relevant discourses, why did this research only choose nutrition for comparison? Though nutritional literacy constitutes a major part of food education discourse and has long been the foundation of public health policies, the discursive contradictions between their subjects, objects, and practices seem to bring us more questions than answers. Isn't it better to choose other discourses, for example, culinary education or food writing?

As a way to talk about food and to define the necessary knowledge, culinary education is more institutionalized, providing a clearer field with abundant texts (i.e.,

recipes and teaching materials of cooking classes) for examining the discursive formation of the knowledge produced, and an interesting subject position that relates to the other positions analyzed in this research. Like dietitians, chefs also need the certificates to speak, though a chef's speech does not completely rely on the certification to be true. Like farmers, chefs are deemed to have a sharper, well-trained sense of taste for food, capable of identifying the original tastes, and know anything about the food ingredients used in a dish. Lastly, like vendors, chefs occupy a place in one's everyday life. It seems to be an ideal position for food education discourse, making the silence of chefs difficult to explain. While most food education programs include cooking classes, and several celebrity chefs participated in food education initiatives, why doesn't food education discourse form a general subject position that allows chefs to speak (that is, not only for the celebrity chefs but for any chef to tell the truth of food)? A discourse analysis of culinary education might be able to help clarify the conditions that contribute to the absence.

Second, the loosely organized field of food writing consists of essays on specific food ingredients, introductions of a dish, or restaurant reviews. Though it does not seem to have a well-defined subject position, and the texts do not form a coherent whole in the format or the content, food writing offers a massive pool of food stories, the reviews of food ingredients, and the criteria of "good food" that might help us better understand the transformation of certain concepts in food education discourse. For instance, since one of the definitions of "real" food is local, and most of the food education handbooks, textbooks, and lesson plans are organized around each place's local produce, the "original" taste might be transformed into other forms, such as "the taste of Taiwan" or "the local taste". An analysis of the notion of local tastes in magazines, local government newsletters, or a food writer's column could provide the context for its discursive formation. What food is selected as the representative of the place? How is this local taste perceived? What knowledge is circulated with the formation of this local taste? Among the competitive foods, what criteria and rules are applied to decide which one is the true "local" taste?

All in all, nutrition, food education, culinary education, and food writing might form a wide field with various possibilities of knowing and talking about food, but when it comes down to the analysis, it is practical to focus on the most relevant one and give

up the others.

But one might also say: you have compared General Grammar with Natural History and the Analysis of Wealth. But why not with History as it was practised at the time, with Biblical criticism, with rhetoric, with the theory of the fine arts? Wouldn't you then have discovered a quite different field of interpositivity? What privilege, then, has the one that you have described? (Foucault, 2004, p.176)

Foucault's (2004) answer to the question could also be applied to mine, that the comparison of food education and nutrition education is only one of the describable pairs, and if compared with other discourses, one might see a quite different system of relations. However, there is no way of knowing whether the connections exist between chosen discourses in advance; the networks can only be shown by the analysis, and their limits and points of intersection cannot be fixed in a single operation (Foucault, 2004, p.177). Therefore, further research on the networks between the above discourses is necessary to check the boundaries, transformations, and intersections of food education.

Lastly, since the problematization of discourse is not universal and could differ in different time periods and societies, a comparison with other periods or countries might reveal a different procedure of problematization, a network with other concepts, and other possible speaking subject positions. For instance, the notion of taste training has counterparts in several countries, some of which can be dated back to the 1970s. SAPERE (meaning "to be able", "to taste", "to know" and "to feel") sensory food education, first developed in the 1970s by a French wine expert and chemist, is designed to tackle the issue that modern French children grow up with limited palates and diets in a food environment full of processed foods. In order to address this situation, SAPERE was created to equip children with sensory knowledge of foods. The French Institute of Taste was established in 1974, and the first taste education classes were started in French primary schools. To date, this method has been embedded in schools in several other countries (SAPERE, n.d.). In 2017, a similar programme inspired by the SAPERE method was launched in the UK. The Flavour School Programme aims to help children develop knowledge, skills, vocabulary and positive associations by exploring food and flavor through the

senses. Leer and Wistoft (2018) also mention that in recent decades, taste education has come to the fore in the Nordic region, using children's sensual engagement with food to facilitate food education and offering a more engaging form of education that could be an alternative to the dominant nutrition education.

By comparing with these counterparts, we may further understand the different ways taste is problematized and be able to answer these questions: How is the approach of sensory food education developed and applied in different contexts? Is it because these programmes are all created to tackle the same global issue in modern societies? Or is it simply a coincidence with no deeper connections? Who is occupying the speaking position? Is the subject position justified with the same logic, rules, or qualifications?

Cross-country comparisons also help to clarify the relationships between Taiwan's broader food education discourse and that of other countries, in order to further define the differences in their discursive formations. The United States and Japan are perhaps the two countries that have had the most influence on Taiwan's food education discourse. Nutritional knowledge in Taiwan was first introduced during the Japanese colonial period and was passed on to the general public through school education and mass media. In the 1920s, there were more and more reports and discussions on nutrition, covering topics such as the nutritional composition of food ingredients and the relationships between nutrients and specific diseases. The decision of the Japanese colonial government to introduce nutritional knowledge influenced the development of Taiwan's agriculture and local eating habits. After the outbreak of the Sino-Japanese War, to make more effective use of the limited food supply, the Japanese colonial government and official organizations in Taiwan actively organized various lectures and seminars since the 1930s to disseminate nutritional knowledge and to teach the public how to obtain higher nutritional values from inexpensive food (Yu-Jen Chen, 2015; Li-Yong Li, 2013; Yi-Ru Wang, 2011).

After World War II, the United States replaced the role of Japan as the main driver of the development of nutrition in Taiwan. At the suggestion of the US-Aid organization, Sino-American Joint Commission on Rural Reconstruction, the Taiwanese

government set up the Nutrition Education Committee to promote nutrition education in schools and technical personnel training, and organized lectures, seminars, training courses, and exhibitions, which led to the development of nutrition-related professional organizations (Fan Yen-Chiou, 2018). However, in recent years, as analyzed in this study, Taiwan's food education policies and discourse seem to be more influenced by Japan. In addition to the fact that Taiwan's food education bill references Japan's Basic Law on Shokuiku (Food Education), the discursive formation of food education's subject has also adopted Japan's concept of shokunin (職人), which implies the recognition of their craftsmanship, experiences, skills, and professional knowledges. The concept of shokunin was introduced to Taiwan in the 1990s when Japanese media content became popular and was increasingly used to build a positive image of the Japanese brand in advertisements for Japanese products sold in Taiwan. Eventually, it became a widely used term to describe workers with specialized skills and experience in a wide range of industries (Lin Wei-Rong, 2016). The comparisons with other countries could further our understanding of the discursive formation of food education.

This is the broader context that should be researched and described. Food education as the main intersection of the network provides the necessary leads to the various possibilities of problematizing food: “Why should we need to know food”, “What could we know”, and “How do we know”? By examining the ways food is problematized, future research can further explore the types of relations linking the manifestations of truth with the procedures, subject positions, and possibly objects. The above questions cannot be answered with interviews of individuals or a political economy analysis of the social structure, as the formation of these networks is local, fragmented, and not necessarily decided by psychology or economics. Only through the examination of the discursive formation can we locate the gaps between the objects and subject positions, describe the scope that certain rules apply, and confirm the conditions that make it possible to know food.

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Appendix A

Timeline of Key Developments of Food Education in Taiwan

2011	The environmental group Homemaker United Foundation launched the "Green Food Education" project
2012	Tainan City Incorporated Food Education into the municipal education policy
2013	The Agriculture and Food Agency Launched the Organic Agri-food Education Program
2013-2014	Multiple food safety scandals in Taiwan triggered heated discussions on food education
2014	Civil society organizations co-established the Agri-food Education Legislation Promotion League
2015	Taipei City launched the Little Farmers project to promote food education
2015	New Taipei City launched its food education program
2016	Taiwan Food Education Association was established
2017-01-13	Yilan County Government announced the Ilan Self-Government Ordinances of Healthy Diet
2017-05-04	The Council of Agriculture launched the Agri-Food Education Promotion Program
2018-04-30	The Council of Agriculture published the draft of the Food and Agricultural Education Act
2018-05-07	The Council of Agriculture established the Food and Agricultural Education Teaching Resource Platform
2018-09-26	Taichung City Government announced the Taichung Self-Government Ordinances of Agri-food Education
2018-10-27	The draft of the Food and Agricultural Education Act was submitted to the Legislative Yuan for review
2020	Taiwan Children's Food Education Association was established
2021-05-06	The Executive Yuan passed the draft of the Food and Agricultural Education Act
2022-04-19	The Legislative Yuan passed the third reading of the Food and Agricultural Education Act