Suggesting an Extensive Interpretation of the Concept of Novelty That Looks at the Bio-Cultural Dimension of Food

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Abstract: “Novel food” in the European Union’s (EU) legal terms refers to any food that was not used for human consumption to a significant degree within the EU before 15 May 1997 (Regulation 2015/2283/EU (2015)). Placing novel food on the market requires a safety assessment when such novelty is ascertained, with the consequent need of an authorization procedure that is not required for food traditionally conceived in the EU. Studies have highlighted how such a Eurocentric proof of traditional/novel use of food results in unequal treatment of third countries, with a slowdown of their market investments in the EU market. This contribution addresses this aspect by critically examining the disparity of treatment and suggesting the adoption of a wide-ranging interpretation of food novelty that considers the biocultural context in which food is embedded. This work is based on a critical legal analysis through the hermeneutics of Reg. 2015/2283/EU (2015) and a case study on algae from Northern Norway and Sápmi, carried out by the project SECURE. We conclude that a legal interpretation connecting food to its biocultural context would contribute to qualify it as traditional and therefore facilitate its placement on the market. Our case study provides an example of the macroalgae collected in Northern Norway/Sápmi that through the criterion of the biocultural context would qualify as traditional food, without recourse to the authorization procedure. Further research could assess whether the European Commission’s list of authorized novel foods (which include algae whose status as novel food has been inquired and assessed) expands to also comprehend some of the low-trophic marine resources (LTMR) harvested in Northern Norway/Sápmi.

Keywords: EU; novel foods; food; culture; critical legal analysis; empirical research; importing countries

1. Introduction

The European Union’s definition of novel foods encompasses any food that was not used for human consumption to a significant degree within the Union before 15 May 1997 and thus may be considered to be novel (Regulation 2015/2283/EU (2015) [1]; emphasis added). In this context, traditional food refers to food consumed by EU countries prior to 15 May 1997, or any food that is traditionally considered as such within the EU. Therefore, placing food on the market requires a safety assessment when the food’s novelty is ascertained through an authorization procedure that is not required for food considered as traditional. Studies show how such a divide between traditional and non-traditional foods creates obstacles for the food business operators from third countries, discouraging supply chain investment and market development [1,2]. One of the root causes of this problem lies within the geopolitically limited (Union-centric) and sector-based (consumption-oriented) focus of the legal provisions. The category of “use for human consumption to a significant degree” is not only narrow but also vague. The requirements of novelty become less transparent in Whereas n. 15) of Regulation 2015/2283/EU (2015) [3] and reinforces inequitable barriers between food markets. In particular, Whereas n. 15) refers to the specific case of traditional food from third countries whose placement on the European market should be
facilitated where the history of safe food use in (such) a third country has been demonstrated. In order for this food to be exempt from the category of novelty (i.e., Whereas n. 15) of Regulation 2015/2283/EU (2015)) and therefore from a safety assessment before the placement on the EU market, it “should have been consumed for at least 25 years as a part of the customary diet of a significant number of people.” Notably, the significant degree seems to be a confusing method of measurement related to a temporal scale (i.e., does this measurement refer to food consumed for at least 25 years, presumably counted backward from the intended date of the market’s placement, or the date of the entry into force of the regulation?) and to a generic reference to a certain number of people (a significant number). Another vague clause of Whereas n. 15) adds that, “the history of safe food use should not include non-food uses or uses not related to normal diets”. However, what the cited statement does not clarify is whether such an assessment on the non-food uses is to be regionally contextualized within the borders of the European Union or within the third country over the 25 years. Furthermore, the reference to normal and customary diet appears culturally odd and legally imprecise: such reference does not clarify, for example, how the parameters of normality and custom in a diet should be determined, by whom, and at which time.

The research surrounding novel food has highlighted the difficulties that arise for food business operators from third countries due to the grey areas of European legislation on novel foods; however, there are no studies on the significant role that legal interpretation could play to overcome such an impasse [4,5], while providing a solution in terms of legal certainty [6,7] and equal treatment between EU and third countries [8].

This contribution addresses the gap by answering the following research question: how is it possible to address the discrepancy between the European Union’s definition of novel food and the perspective of the third countries’ legal culture, in such a way that takes into account the rich biocultural food context of the latter, and therefore in a way that fully reflects legal certainty, normative expectation, and equal treatment between countries and their food culture?

To answer this question, we proposed a comprehensive wide-ranging interpretation of the concept of food, one that looks into food and bio culture as interwoven elements in an integral ecology system.

This hermeneutic helps to build a knowledge base for assessing what traditional food entails, a knowledge base that is expected to guide interpreters, legal scholars, and practitioners towards a more accurate understanding of food novelty compared to Regulation 2015/2283/EU (2015). A case study involving marine low-trophic species from Northern Norway and Sápmi illustrates the Norwegian and Sámi legal cultures coexisting with the local coastal food systems (SECURE Project).

2. Materials and Methods

2.1. A Combination of Methods

To achieve our research aim, we combined two investigative methodologies [9]: (1) legal analysis in the context of critical systems thinking (Section 2.2), and (2) insights from the case study offered by the project SECURE on Novel Marine Resources for Food Security and Food Safety, UiT The Arctic University of Norway (Section 2.3) [10]. The combination of methods follows two analytical steps: a suggested contextualization of food within space and time coordinates that adhere to the principles of integral ecology (step 1), and testing such contextualization through the case study of macro-algae in Norway as an example of low trophic marine resources (LTMR) (step 2). In this article, we refer to the relational and functional dimension of the low trophic marine species, and we look at such species in their relational dimension within the food web (hence their categorization as resources).
2.2. A Legal Analysis in the Context of Integral Ecology (IE)

In an article published in *Sustainability* (2020), where the preliminary findings of the project SECURE have been published [11], Poto suggested that critical systems thinking helps to comprehend the Agenda 2030’s goals systematically, enhancing the achievement of the sustainable development goals (SDGs), and specifically contributing to the upscaling of ocean-smart practices [11]. A conceptual framework provides two advantages: it offers a reading key for the SDGs’ interactions (theory-building) and a knowledge base for exploring the upscaling of climate-smart practices applied to the ocean, such as the case offered by SECURE (theory testing).

Based on this premise, we argue that the critical systems thinking approach helps further the investigation on food novelty by opening the Eurocentric focused perspective to global challenges (where the adjective is meant to comprise both worldwide-ranging and local issues) and to intersectional approaches. Such an approach establishes a broader context for the interpretation of food novelty, a context that embeds cultural, social, and environmental dynamics, in addition to the protection of consumers’ health.

Our proposed wide-ranging interpretation stems from the concept of integral ecology (IE) through Fritjof Capra’s analysis of life as a systems view in the frame set by Pope Francis’s Encyclical Letter: Laudato Si’ [12,13]. Capra observes continuity and analogy between systems thinking (which he notes is a concept borrowed from hard sciences) and acknowledges that the integral ecology concept can be rooted in a new way of thinking, one that is based on connectedness, relationships, patterns, and context [6]. Such new thinking conceptualizes the interconnection of living systems of any kind, be they living organisms, social systems, or ecosystems. The intersectionality of integral ecology addresses social justice, the protection of the planet, and reverses economic inequity. This concept integrated into food novelty assessment can take away the detrimental dichotomy of “us” versus “them” that the Eurocentric food novelty framework currently encourages when evaluating third countries’ food. If not appropriately addressed, this dichotomy can lead to European cultural and legal dominance in the EU food market, while silencing third-country food operators and consumers.

Operating from an IE perspective respects and supports third countries’ biocultural right to import and consume food in the EU that is traditionally conceived within in their own third-country system. The SECURE Project (Section 2.3) is an effective example of intervening from an IE perspective (in terms of “novel food”) to achieve socioeconomic prosperity that promotes equity and ecological welfare while reinforcing environmentally conscious consumption practices.

Translated into legal terms, such understanding embraces the concept of integral ecology on the basis of the construction of biocultural rights [14]. Integral ecology embraces biological rights (e.g., right to life, to health, to food) and cultural rights (e.g., right to develop and conserve individual and collective knowledge on life, health, and food) in their integrality [15]. The integrality of biocultural rights has three manifestations [15]. First, the concept combines nature with culture in a way that biodiversity and cultural diversity are interdependent and inextricably linked. Second, the concept connects temporal phases, unifying the past, the present, and the future. Distinctive histories (past), examination and understanding of integral systems (present), and strategies to protect and conserve biocultural diversity for future generations (future) are conceptualized in an interconnected and systematic manner. Third, the concept draws a species–genus relationship between a single group vision (legal order of a group of people) and a universal vision grounded in the sense of common interest. The concept of biocultural rights assumes the right of a people or a group of individuals to self-determine and maintain their distinct biocultural heritage, which is essential to the maintenance of biodiversity and cultural diversity. The duality of right-obligation to conserve, respect, and protect special biological and cultural elements is an indispensable tool to conserve, respect, and protect the diversity of the universal common goods [15].
For these reasons, systems thinking is applied in a way that acknowledges the integrity of the system and includes the unheard voices [11] (p. 7), providing a new matrix for the concept of novelty. Such a matrix builds on biocultural features within a space-time diagram where global and local knowledge intersects past, present, and future. The matrix critically revisits and moves beyond the narrow conceptual, spatial, and temporal focus of the EU definition (Figure 1).

**Figure 1.** Matrix illustrated by Camilla Neema Haule and Valentina Bongiovanni, 2021. The matrix shows the intersection of space and time coordinates and the role of food as a biocultural right. The whole system is embedded in the integral ecology systems thinking, within the framework of the “tang-og-tare” (see p. 7). Adapted from CN Haule and V Bongiovanni (2021).

### 2.3. The Case Study of Macro-Algae

The research conducted in the project on “Novel Marine Resources for Food Security and Food Safety (SECURE)” [10] reinforces and validates the described integral approach. By exploring an innovative perspective to providing sustainable seafood, from LTMR to the growing population, the project aims to achieve better socioeconomic and ecological welfare, with an increase of trust in seafood from environmentally conscious consumers [10]. Under SECURE, the law team focuses on the legal issues related to the harvesting
and utilization of marine species from lower trophic levels in the food web and investigates the accuracy of their definition as “new” species related to their qualification as a novel food for the European food market. Although the investigation is still ongoing, from a preliminary assessment, such newness, or novelty, seems to be related to the expected and not yet tested potential health and nutrition benefits of the ocean species. In our view, the exploration of the multifold range of benefits is likely to lead to the categorization of many of such resources as “traditional food from a third country” (Art. 3, comma 2 (c) of Regulation 2015/2283/EU (2015) [3]), rather than novel food. Their feature as “traditional” is assessed within the biocultural context of Northern Norway and Sápmi (Figure 2).

Figure 2. Map: Bjørn Hatteng, UiT The Arctic University of Norway. Sápmi borders. Source: http://www.samer.se/karta (accessed on 30 April 2021). Adapted from BHatteng (2021).

We developed our analysis of the case study into two main steps: a preliminary evaluation of LTMR, which involved listing the organisms with nutritional and health benefits expected to be tested and validated by the SECURE team (step 1), and selection and assessment of one species among LTMR through the lens of the integral ecology and the biocultural context approach (step 2).

In step 1, we looked at the definition of LTMR, which comprises species that belong to the low-trophic levels in the marine food supply chain. The lowest level contains the primary producers, i.e., micro- and macroalgae. The plants or their products are con-
sumed by the second-level organisms—the herbivores, or plant eaters (primary consumers), such as zooplankton. At the third level, primary carnivores eat the herbivores, and at the fourth level, secondary carnivores eat the primary carnivores (Figure 3).

Figure 3. The pyramid of trophic levels in the marine food supply chain is illustrated by Camilla Neema Haule. The pyramid shows the four trophic levels. Our contribution mainly focused on the primary producers, with particular emphasis on algae in Norway. Adapted from CN Haule (2021).

In the category of LTMR in the project SECURE, the following organisms are included: unicellular and multicellular organisms of plant and animal origin (marine bacteria, parasites, and other unicellular organisms); microalgae and protists (phytoplankton), and other unicellular biomasses; macro-algae (seaweeds); and zooplankton (large herbivorous species such as krill, and copepods) [16].

Among the listed LTMR, it is worth sharing some reflections on algae in Northern Norway/Sápmi, and the integral ecology context they are embedded in (step 2). A study conducted by Efthathiou and Myskja shows how algae from coastal Norway are related to the metaphor of “ecology of values” (EV) [17]. In this research, the EV conveys the idea of an enriching relationship between humans and the natural environment, which seems to have many aspects in common with the concept of integral ecology (IE), and has been
used in our analysis as a matrix to develop a deeper and more holistic understanding of the concept of food. In the case of IE and EV, the focus is on the relationship built on the human appreciation of the natural environment along with material, epistemic, and moral dimensions. By emphasizing the non-instrumental evaluation of “tang-og-tare” (Norwegian for macro-algae, alluding to the entangled and tender characteristic of seaweed), the authors demonstrate that seaweed from coastal Norway/Sápmi can be confidently qualified “as a fruit and then as a crop of the sea” since the early 20th century [17]. This way, the authors refer to spatiotemporal coordinates in a way that is very similar to the way we have indicated within our matrix (Figure 1). Tang-og-tare being considered a fruit that evolves into a crop of the sea shows its multiple connections with spatiotemporal coordinates, as well as its connectivity to a biocultural context. Spatially, tang-og-tare connect land and sea, growing in beautiful forests underwater along the coasts of Norway/Sápmi. Furthermore, temporally, they have always been amply available to pick up without the need of harvesting the sea (hence the term “fruit”), as local populations utilized them regularly when washed up by storms. In this sense, algae are a fruit because they have always been abundantly available to pick up without harvesting the sea. Over time, they have also become a “crop of the sea” and have been harvested. Moreover, algae fulfill several other purposes, such as feeding animals, supplementing human diets, and fertilizing the soil. In coastal areas, kelp production (the ashes of sizeable brown seaweed) has also played a significant role in the glass industry in the 18th century.

Such complex interactions in the marine ecosystem allow us to appreciate algae beyond the limited assessment of human consumption. Instead, we can observe algae in a context that encompasses reasons, emotions, meaning, and beauty [17], which we can confidently qualify as traditional.

3. Results

3.1. Merging Critical Legal Analysis and Empirical Research

The legal definition of novel food has been analyzed through the hermeneutic lens of the integral ecology matrix [12,13] (Figure 1). Our integrated analysis shows the relevance of a legal interpretation that extensively considers the rich biocultural context in which food is embedded. A living interpretation of the law marks a step towards a legal accuracy that reflects the societal and cultural aspects of a given legal system [18]. In this sense, legal accuracy is achieved through an extensive and living interpretation, taking into consideration the cultural and societal histories and differences, and going beyond a rigid and standardized temporal (15 May 1997) and spatial (the EU borders) scale. A clear example of how food should be situated within a context of biocultural diversity is offered by the SECURE project case study involving macroalgae (tang-og-tare) in Norway/Sápmi. Our research shows how algae may be considered a traditional food if we look at it through the lens of the integral system of the Norwegian, Sámi, and coastal cultures. If we follow a restrictive interpretation of the EU Regulation, many types of such food would not qualify as traditional, and therefore would not be easily placed on the market and the authorization procedure requested for novel foods would need to be implemented, resulting in a slow-down of third countries’ market investment.

For this reason, we advocate for a wide-range interpretation of food novelty that accurately reflects the living law [6–8] and is closer to the biocultural context in which food is embedded [15].

This study did not conduct a thorough cross-examination of the list of authorized novel foods that the European Commission, through the Regulation (EU) 2017/2470, maintains online. Such legislation applies to macroalgae species intended to be used as food. Thus, the list contains information of the species whose status as novel food has been inquired and assessed. The list is non-exhaustive and is based on information collected from the member countries. The Novel Food Catalogue comprises both European and imported seaweeds, and until the end of 2020, there were 22 seaweed species listed [19]. Further
research is needed to verify and assess whether this list eventually expands to some of the species of macroalgae collected in Northern Norway/Sápmi. For now, we conclude that tang-og-tare go beyond the restrictive interpretation of novel food and qualify as “traditional food from a third country” (Art. 3, comma 2 (c) of Regulation 2015/2283/EU (2015) [3]).

4. Discussion

Regulation 2015/2283/EU (2015) seeks to ease the burdens of placing a novel food on the European market, as well as to simplify the authorization and notification procedures, while still maintaining a high level of food safety [3]. However, it can be questioned whether a narrow interpretation of the regulation fails to acknowledge the biological, social, and ecological dimensions that need to be assessed when deciding what constitutes novelty in food, especially when assessing whether food from an importing country qualifies as “traditional”. Hence, this paper calls for a discussion about the necessity to broaden the scope of the EU novel food regime, interrogating whether the current regulation recognizes the biocultural aspects of food. Our discussion highlights the potential beneficial effects of accounting for existing traditional and customary knowledge in the novelty assessment.

An interpretation of the EU food regulation that takes into consideration the link between food, diet, and nutrition on the one hand, and the food’s social dimension on the other, contributing to defining novelty in a bio-culturally and therefore legally accurate manner. It also reinforces the argument in favor of the consumers’ safety with the demonstration that such traditional food has already been used for human consumption to a significant degree. Hence, widening the interpretation of the EU regulation could contribute to further flow and development in the food sector and perhaps facilitate the upscaling of climate-smart ocean practices [16,19,20] into the existing food systems and markets. By absorbing biocultural dimensions into the novel food regime this way, we might find ourselves one step closer to the effective implementation of the sustainable development goals [21].

5. Conclusions

This article exhorts legal scholars to look critically into the accuracy of legal terminology [6,7] of the EU novel food law and suggests a broad interpretation of the definition of traditional food, one that takes into account the biocultural context in which food is embedded. Empirical research conducted in Northern Norway/Sápmi provides an example of how an integral ecology perspective contributes to the framing of low-trophic marine resources as traditional food, reaching a conclusion far closer to reality than an assessment based on the criterion of the safe use, as suggested by the EU regulation. Research has overlooked the role that legal interpretation can play to overcome the impasse of the gray areas [4] of novel food. This article addresses this gap and suggests an extensive interpretation of the legal provisions.

Caring about the accuracy in legal terminology goes hand in hand with the necessity to avoid ambiguity and vagueness that necessarily defy the rule of law, which includes the legitimate normative expectation of a clear law, that treats different situations differently depending on the need (in accordance with the known principle of equal treatment). Critically analyzing ambiguous terms through the integral ecology lens helps to contain the risk for ambiguity to become an object of governance—a strategic asset in governance, as Jacqueline Best observes [22]. Gray areas in terminology can build invisible barriers—as in the case of novel food—as the obstacles to the market placement of foods that do not belong to the European culture [18]. In this sense, an extensive and living interpretation of the law contributes to mitigating the governance, and dominance, of a leading legal culture over others.
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