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‘Eating well’ in Pacific Islands Countries and Territories: a qualitative and normative approach to food cultures in New Caledonia

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ABSTRACT

In recent decades, the food cultures of the Pacific populations have undergone a profound transition, particularly because the increasing trade exchanges with Western countries have facilitated access to a wide range of processed foods. Essentially, a new normative model of eating is now taking the place of the traditional models. The aims of this qualitative study were to explore what ‘eating well’, ‘good food’ and ‘bad food’ now mean in the New Caledonian family context and, more broadly, to categorise the current food practices and representations in adolescents’ families. A double qualitative methodology was applied: 59 face-to-face interviews with 30 parents and 29 adolescents in both rural and urban areas and 15 collective structured discussions with middle-school classes (11- to 16-year-olds) of almost 25 students each. [The main](#) results showed various normative frames for nutrition, food quantities, local provenance, and personal taste. Food practices were related to food availability (having a home garden or involvement in family farming), socioeconomic status and community. In addition, access to nutritional information, temporal and financial constraints mostly in the urban area, and the role of food socialisation between parents and children had an impact on food practices and perceptions. The permanence of food cultures,

mainly observed in families in rural areas, and the social inequalities in urban areas regarding food availability are highlighted. The positive perception of ‘local food’ as ‘cultural’, ‘organic’ and ‘healthy’ may help policymakers communicate clear messages to reach a sustainable food system.

Keywords: food habits, social norms, ethnicity, social and cultural anthropology, adolescents, Oceania.

Introduction

Since World War II but particularly in recent decades, the food cultures of Pacific populations have been undergoing a profound transition. Trade exchanges with Western countries have greatly facilitated access to a wide range of processed foods (Loison et al. 1973, Coyne et al. 1984 and 2000), especially in the Polynesian area (Pollock 1992, Serra-Mallol 2010) and more recently in the Western Pacific Islands and New Caledonia (Djama 2006, ASSNC 2011, Bourguine 2014). This has had a major impact on traditional local foodways (Westernized), the food supply (from auto-production to monetarisation), and chronic diseases (noncommunicable diseases: NCDs, linked to the way of life). Indeed, recent studies have found that 35% of 11- to 16-year-old New Caledonian teenagers are overweight or obese (Frayon et al. 2017). Globalisation has also impacted cultural representations of food and eating, creating a food model that is a mix between tradition and modernity with many local and global influences: from Christian and European influences to Polynesian and Chinese influences.

New Caledonia is linguistically, culturally, sociologically, environmentally, and economically diverse (see Fig. 1). The local Institute of Statistics and Economic Studies (ISEE 2016) thus identified 11 communities in the last census, in 2014: particularly Melanesians (39%), living mainly in the Northern Province and the islands; Europeans (27%), living mostly in the urban Southern Province, where three fourths of New Caledonian inhabitants live (271,407 inhabitants in 2019); Polynesians, from Wallis and Futuna or French Polynesia (10%); mixed origins (9%); and Caledonians (7.5%). Recently, we noted that the two newest categories, mixed origins (several communities) and Caledonian (mostly locally born Europeans, included in the European category in the previous census), are in constant progression in the censusesⁱ, providing proof, if it were necessary, that a mixing of the population is gradually occurring, as well as – and above all – an evolution in self-representations. These shifts, and the changes from tradition to modernity concerning food, have suggested several questions:

How does food socialisation take place in multi-community New Caledonian families with 11- to 16-year-old children? What do ‘eating well’, ‘good food’ and ‘bad food’ mean for young Caledonians and their parents? How do these social and cultural representations impact food representations and practices? And how may they explain the food habits leading to obesity?

The aims of this study were to explore how ‘eating well’ is currently defined in the family context and, more broadly, to determine the current food practices and representations in New Caledonian families according to their socioeconomic situations (family location and constitution, income, community).

1. Socio-anthropological theoretical frame

1.1 Food and foodways in New Caledonia

It is well-known that food is not only an issue of nutrition, but also of social and cultural influences (Farb & Armelagos 1985, Fischler 1990, Menell et al. 1992, Falk 1994, Lupton 1996, Warde 1997, Poulain 2017). All social groups produce a normative system with social norms concerning what food is and is not, for whom and when, as the ‘language of food’ (Pollock 2011). The modernisation of food production and consumption and globalisation have caused a gap, however, between these social norms and concrete food practices (Fischler 1979, Corbeau 1992, Lambert 1996), through food and identity rearrangement processes (Martinez 2013, Serra-Mallol 2013). Food practices and representations are derived from sociocultural factors, including the economic factors linked to globalised food production and distribution (Hawkes 2006). This is especially the case in Oceania where food has great importance in social and traditional interactions and situations (Pollock 1992, Serra-Mallol 2010). Eating, including producing, sharing, preparing and cooking food, may be seen as a ‘total human fact’ (Mauss 1950).

The foodways of the ancient Caledonians became well-known through seminal ethnographic and ethnological works. In general, the diet of New Caledonian groups, as of the Oceanians in general, was 80% vegetal. Haudricourt (1964) described New Caledonia as the ‘civilization of the yam’, with a complex agricultural system based on symbolic categorisation of vegetables and shared fieldwork (Barrau 1956): the yam sealed alliances between clans, was the backbone of social and community exchanges and played an essential role in time stamping. Ritual food exchanges took place regularly between inland populations (mainly with yam and taro) and coastal populations (fish and marine products), and ritual and collective meals scheduled social time (Leenhardt 1937). These ritualised and egalitarian exchanges of food

were crucial to maintaining and sustaining exchange networks, mutual aid and alliances (Leblic 2002). Seminal authors have insisted on the importance of food for the Melanesians of New Caledonia, especially Jacques Barrau (1983: 368) who stressed ‘the extreme respect with which they surround the production, preparation and consumption of their customary foods, which are involved in their social life and thought’. Food refers to the land, is the medium of identity for social groups and relationship with ancestors, and is a symbolic support to and through social groups. In native New Caledonian languages, human body parts are confused with parts of the plant-based staple foods: human blood/vegetal sap, human skin/tree bark, etc. Moreover, plant foods are commonly used in social circumstances to symbolize messages, often in a ritualized manner to pass on information (Aufray 2002). Examples might be offering a certain plant food to seek peace or request help of some kind. Furthermore in some of the 28 native New Caledonian languages, like *drehu*, words differ to describe the action of eating staple food (*xen*), eating animal food (*öni*), and chewing (*atra*) sugar cane: what is eaten may have a specific signification, and specific references. As part of social activity, food helps draw the line between the concrete world and the magical world, ‘entre le monde du visible et le monde de l’invisible’ [*between the visible world and the invisible world*] (Leenhardt 1947, Leblic 2002), and between other social separations based on gender, rank or age (Geneix-Rabault and Wacalie 2019): food is a way to anchor traditional eaters in human reality.

As in the rest of Oceania during the nineteenth century and especially in the first half of the twentieth century, Western colonisation introduced the indigenous populations to the cheapest products of mass food industrialisation by sending these products first to the French troops, then to urban populations, and then to rural workers. New Caledonian eaters quickly became accustomed to tins, sweetened condensed milk, cakes, rice and dried vegetables in their daily diet (Malcolm 1953), and the working population became increasingly monetised as local trade was established from wholesale trade. Like elsewhere in 1950s-70s Oceania, food in New Caledonia began to lose its strong ties to the land and ancestors and their traditional significations. In the 1970s, the first supermarkets were opened in metropolitan Noumea and then in the cities of the Northern Province. Hypermarkets appeared in the 1980s-1990s, expanding food choices even more through extensive industrial and marketing diversification. However, they also reflected the growing social and monetary inequalities regarding access to healthy food, which somewhat restricted this tendency. The outcome has been that those with the lowest incomes have today been abandoned to the worst industrialised food products, despite their inclusion in food exchange networks. This type of social inclusion appears

inversely proportional to market access, like elsewhere in Oceania (Serra-Mallol 2018), and is all the more evident as one moves away from Noumea. Even rituals of food exchange between women have been monetised (Djama 2006, Sabourin & Tyuienon 2007). Whereas 58% of the New Caledonian population was urban in 1976, one of the highest rates in the Pacific Islands (Coyne et al. 1984), this figure rose to 71% in 1996 and stabilised at 67% in 2014. These urban migrations have been accompanied by changes in agricultural techniques and methods and food practices, due to the abandonment of traditional farming, fishing and hunting in favour of gainful activities in mines or the tertiary sector (Coyne et al. 2000). From activities of auto-production and trade, inhabitants thus moved to the monetary acquisition of their food, particularly canned meat and fish and flour and rice, which complemented and gradually replaced local plants, whose areas have shrunk to make room for agricultural and livestock production.

Research has shown that, over the last forty years, Oceanian populations have not fully benefited from the substitution of local food products by imported products, in part due to generally irregular and low wages and high food prices, which have forced many to buy the cheapest food on the market. The average daily calorie intake by the New Caledonian population increased from about 2650 kcal in 1963 to 2900 kcal in 1997 (Coyne et al. 2000), with fat intake almost doubling and local plant intake reduced by half. Moreover, average physical activity has sharply declined, mainly in Melanesian adolescent girls (Galy, Yacef & Caillaud 2019). These data reveal significant differences between ethnic groups and might explain the development of NCDs linked to rapid lifestyle changes, despite a general increase in life expectancy at birth (Tassié et al. 1997). The remoteness of Noumea and its nascent agglomeration meant that New Caledonian eaters have had to adopt different modes of feeding according to the place of living, monetary income, and cultural foundations of identity (Galy et al. 2020), and this has produced multiple and plural eaters who have learnt to combine traditional and imported influences. There are three main modes of consumption: one urban and based on monetisation and wage-earning, another semi-urban in rural areas with low population density and livestock-farming (Bouard & al. 2018), and the last tribal; together they constitute the ‘three development circles’ (Angleviel 2018: 291).

According to the last public Health Barometer (ASSNC 2011) and more recent studies, the consumption of fruits and vegetables has been very irregular since 2010, while fat, sugar, and salt consumption has significantly increased, exceeding the nutritional recommendations. This has especially been the case among Polynesians and Melanesians (Wattelez et al. 2019, Galy et al. 2020), who have the lowest educational levels and are the least well-informed, and the

18- to 27-year-olds in particular consume high volumes of cold sweet drinks and are most likely to ‘snack’ during the day. The food portions for Melanesians are also quite large, with the daily intake estimated to be two to four times too high (Bourguine 2014), and the level of physical activity is insufficient. In 2010, the ASSNC (2010) reported that 26.5% of adult New Caledonians were obese, and most were Polynesian (59% were obese) or Melanesian (34%) as opposed to European (11%). These figures revealed an alarming situation compared with the French metropolitan adult population, of which 15% were obese.

Figure 1: Map of New Caledonia



1.2 Adolescent food

Food is an essential element in building the eater’s identity (Fischler 1990), especially for young people, who are empowered by food and cooking (Garabuau-Massaoui 2002). The classical model in sociology is that of identification, and this has been reflected in the recent transition to a model of experimentation (Galland 1991) with a generational transmission of values (vertical sociability), intra-generational transmission among peers, and even a form of inverted socialisation (Gollety 1999) from children to parents, as has been the case for public awareness of environmental issues.

In Western and European societies, adolescence is an important step towards adulthood, a dynamic process of ruptures and transitions, with associated feeding modes. Today, it is defined by the adolescents themselves as the period between 12-13 and 19 years old (Diasio, Hubert & Pardo 2009), with the previous period (9-12 years old) considered pre-adolescence. Although the transmission of family values is not outright rejected, adult status is nevertheless associated with conservative values and routine (De Singly 2000), and entry into adolescence marks a time of distancing from the family environment and order (Corbeau 2009). The elements of identity construction are increasingly found outside the family, from such socialisation agents as peers, teachers and other adults encountered in clubs and so on, with the adolescents belonging to more or less distinct social networks according to shared norms (Galland 1991, Lally et al. 2011, Pedersen et al. 2015). They may indeed belong to a range of networks based on action or time factors, values, or types of relationships, without necessarily any social coherence (Lahire 2004, Stead et al. 2011). From this perspective, adolescent feeding practices might thus be thought of as experimenting and innovating with internalised family food models (Garabuau-Massaoui 2002, Diasio et al. 2009). Because of the increasing and plural modes of socialisation, in contexts of family, friends, school foods, and ‘nomadic’ or fast foods, adolescents now have the opportunity to multiply the sources for models by assigning them to differentiated frameworks associated with particular sociabilities. ‘Family dishes’ nevertheless remain an important reference for these young eaters (Mathiot 2017). Childhood and adolescence are thus times of learning, especially with regard to the family and eating, a context in which they seek to define themselves (Garabuau-Massaoui 2002). From traditional practices that are sometimes idealised or partially rejected through processes of innovation, young people forge cultural capital by imitating their mothers; trial and error; using information from cookbooks, culinary TV shows or dedicated websites; and interacting around food with their peers (Garabuau-Massaoui 2002, Nawas 2011, Rageliene & Gronhoj 2020). Through horizontal or intra-social generational relationships, they thus build their own food cultural capital (Bourdieu 1979), which reaches its peak in early adolescence (Fuligni et al. 2001) while parental influence decreases (Shroff Pendley et al. 2002). They innovate by incorporating new culinary standards based on internet discoveries on specialized sites or ‘foodie’ blogs, but especially by interacting with peers who are also interested in food discovery, culinary hybridisation, and the association and creation of new dishes (Finnerty et al. 2009, Stok et al. 2014, Brown et al. 2015). Food thus serves as a means of building identity for youths, creating age and gender differences (Cooke & Wardle 2005, Caine-Bish & Scheule 2009) and reinforcing the feeling

of incorporating a community (Newman et al. 2007, Stead et al. 2011): no longer drinking milk or giving up the mid-morning snack is a sign for young people of a transition from childhood to pre-primary adolescence. Similarly, transitioning from pre-adolescence to adolescence can take the form of abandoning sweets for more ‘age-appropriate’ foods like pizza, kebabs, pasta, etc. that can be bought on the street (thus emancipating themselves from the school canteen) and eaten with friends in public places, a sign of autonomy and self-affirmation (Bauer et al. 2008, Diasio & Pardo 2009, Mathiot 2017). Adolescents between 14- and 15 years old thus can use food as a support for their self-affirmation even to the point of eating to excess in the canteen (Guetat & Liore 2009), whereas the older adolescents are more aware of the strong pressure to behave responsibly. Food is also related to body image during the adolescent process of identity construction, especially in Oceania where representations of body corpulence are different from those in Western societies. These representations are culturally valued (Pollock 1995, Serra-Mallol 2008) and express a different relationship between the self and the body (Frayon, Cavaloc, Wattelez et al. 2017). The Western notion of fixed identity between body and self is replaced in Oceania by a vision of a body that mediates and substantiates the relationship between the self and the collective, all embedded in the socio-cosmic matrix (Becker 1995).

Few data are available on the feeding patterns of New Caledonian children and adolescents (Bourgine 2014). Social temporalities traditionally refer to other determinants, and biological age is less significant than psychological maturity, but these cultural norms have been influenced by a century of the French institutional normative model. Generally speaking, the young acquire the same good or bad food habits as their parents and often fall prey to advertising that encourages the overconsumption of food and sugary drinks (Frayon, Cherrier et al. 2017). The behavioural determinants of childhood obesity are now seen in New Caledonia, including high consumption of television and web media and a lack of physical activity (Galy, Yacef & Caillaud 2019), the result being a higher risk for being overweight in Melanesian and Polynesian adolescents compared with European adolescents of 11 to 16 years old (Frayon, Wattelez, Paufique et al. 2020).

1.3 Research methodology

The objectives of the study were to examine the food habits and representations of New Caledonian adolescents and their parents and to determine what ‘eating well’, ‘good food’ and ‘bad food’ mean to them. The fieldwork was conducted from July 2018 to April 2019 in eight sites of New Caledonia, including five located in the urban and peri-urban area, two located in

a rural area of the main island, and one on the rural island of Loyalty. A double qualitative methodology was used: individual face-to-face in-depth interviews and group discussions with the students of middle-school classes. Five trained investigators (three women and two men, one of each familiar with Melanesian idioms) conducted the interviews (at home or in public places like restaurants or a sports field). Three ran the group discussions.

Fifty-nine face-to-face interviews were conducted with 30 parents (and/or grandparents) and 29 adolescents constituting 23 families (parents and/or grandparents plus child) from rural and urban areas: 33 interviews were with urban families, and 26 with semi-rural or rural families (14 of which in New Caledonian tribes). The socioeconomic status (income and educational level: high=13, middle=18, low=27), location (urban, semi-rural, rural) and self-declaration of community (European: 11, Melanesian: 25, Caledonian: 12, Polynesian: 7, mixed: 4) of these families were considered for sampling. The face-to-face interviews lasted from one to one and a half hours with adults, and from 45 minutes to an hour with the children. Questions concerned the food consumption of the day before, general thoughts about food, perceptions about 'eating well' and 'good' and 'bad' food, and information on sources of foodstuff.

Fifteen group discussions were held in middle-school classes (11- to 16-year-olds) of 25 students each after times had been set up with the school director and the teachers. Four of these classes were located in the urban area, eight in semi-rural areas, and three in rural areas. In each group, the discussions lasted about one hour and were led by one researcher while the other took notes. The topic was 'eating well' and 'good' and 'bad' food and what these students thought about them. Around these three terms, 1043 individual quotes were collected: 617 on 'eating well' or 'good food' and 426 on 'bad food'.

Individual interviews were integrally transcribed, analysed and categorised both one by one and by 'family' (adolescent plus parent or grandparent), according to comprehensive and thematic analysis. The group discussions were transcribed and analysed with a quantification of the food expressions used by almost 350 adolescents and their categorisation.

We obtained informed written consent from all parents before they and their children entered the study. The research met the legal requirements and the Declaration of Helsinki, and the protocol was approved by the Ethics Committee of New Caledonia: CCE-NC 2018-06 001.

2. Results

2.1 Food practices and socialisation in New Caledonian families

In the interviews, food practices and representations were associated with several criteria, presented here in descending order of frequency. First, socioeconomic *status* (total income

and educational level) mainly explained the food habits: the higher the status was, the healthier the food was and the better the nutritional information was. Second, the family's *food availability* explained the food practices and was linked with high income or being involved in food production or non-monetary sharing of the food supply in urban or semi-urban areas. Melanesian families living in semi-rural areas added processed food to their local-food diets, mostly highly sugared and fattening food and drinks, and those living in rural areas had the highest rate of local supply but also ate the most food. The role of *food socialisation* between parents and children also had an impact on food practices and representations (particularly cultural and social norms, such as what constitutes 'eating well', 'good food' and 'bad food'), which reflected familial and collective norms and values (eating a lot, eating local products, giving importance to nutritional aspect, etc.). However, the adolescents' food knowledge was generally more shared than that of their parents and had been acquired through the school canteen and exposure to school nutritional programs, with differences according to economic and social position.

The analysis of the interviews with the adolescents and their parents revealed that the food practices at home were determined by *social time* (the travel time from home to work) and professional temporalities (work temporalities and/or both parents working with only one car, mostly in the urban area) and mainly affected low-income families. For example, we observed that the adolescents (and frequently their parents) generally skipped *breakfast*, and the money that the parents gave to their teenagers for bus transportation and breakfast food was actually spent on candies and take-away food.

'We each have our meals because my son doesn't eat breakfast. So, usually in the morning at home he doesn't eat or drink anything. So, uh, it depends on when he gets to school, I always give him money for the morning and uh, he can go for a croissant, a juice, or he may get the juice at home. He gets take-away food because he doesn't have breakfast, he doesn't want to because it's too early. So it's more towards school recreation that he'll start breakfast, out of step with the others. Or not, it depends... (interviewer: and you, do you have breakfast?) Me? Just a coffee... I don't eat breakfast, it doesn't agree with me... (laughs).' (36-year-old Polynesian woman, urban area)

'Today, I didn't eat anything in the morning, I got up at 6:00, I got ready, and I forgot to eat... And I don't usually eat anything in the morning. Mum comes with me to school, we arrive at 7:00, and then there's class until 11:30. They sell toasted cheese

sandwiches there, I buy one around 9:00. I eat it in the courtyard. I eat it like this, without drinking or anything.' (14-year-old Melanesian girl, urban area)

Candies and *sugared* beverages were often brought into the middle schools by the children as gifts and exchanges with their peers, and they seemed to be a way of socialising for the youngest adolescents.

'Candies, it's for after school, at noon at home, I'm not allowed to eat them in the morning at home. And if I have some on school days, if I've got candies, candies from home, I share them with my friends at school.' (11-year-old boy, Melanesian, rural area).

Sugary foods and beverages constituted an ambivalent category for the adolescents (Stead et al. 2011) because, nutritionally, they are a 'food to be limited' but also good- and sweet-tasting and a medium of exchange with peers.

Increasingly, under the *temporal constraints* of transport and professional activity that are perceived as a real 'acceleration of time' (Rosa 2010), 'haggling' took place between family members around minimising the time for culinary activities, often considered of secondary importance. Organising meal preparation around work schedules, simplifying and individualising meals, buying enough food in one trip to last at least a week, using fast cooking equipment, techniques and products (freezer, microwave, processed or 'ready-to-eat' food, etc.) were all strategies put in place by the families. These strategies minimised mealtimes, with the risk that the mealtimes would become trivialised or desynchronised (parents and children eating separately). These issues raised questions about food sharing, familial organisation and the sense of commensality (Fischler 2011) in some New Caledonian families.

'I get up at 5.30, time to prepare everything for breakfast, I wake up my children around 5.45, so they have time to eat breakfast, then it's a race to get them dressed and ready (laughs) and I at the same time I have to get my little one ready for the nursery, that's it, and I tell them that by 6.15 at the latest we're gone, and so it's not easy because we only have one car and my husband also works... I arrive at work 7.35-7.40 at the latest, because after that there are traffic jams in K... (...) There are days when my husband works from 3 am to 11 am, he works two days like that, then from 11 am to 7 pm two days like that, and then from 7 pm to 3 am, that's it. We only have one car, so every time we have to juggle this. I get everyone back, so now that dad's working and finishing at 7.00 pm, I don't come home because it's too much back and forth and... So I'm going to do something with them for a little bit, take them out for a snack, to the

park, or in the car, or if I can do some shopping and stuff, and we wait until 7.00 when I pick up Dad at his work ...' (42-year-old Polynesian woman with five children, urban area)

Lunch was generally eaten at school canteens by the children and at work by their parents (take-away food or nibbles at the workplace in general, and 'lunchboxes' (or 'gamelle': the local term for a meal prepared at home) by workers in logistics or the mining industry. It was the main structured meal for some children, and the school canteen was perceived as a place offering various low-fat meals and allowing 'free' (i.e. without the parents) interactions and socialisation with peers. Middle- or low-income stay-at-home parents ate the leftovers from the dinner the day before so as not to waste food: for all, the most important meal is the evening meal when the whole family is at home. Dinner was generally structured with a main meal and dessert. There was little or no eating alone except in cases of professional or temporal constraints, but some families had individualised meals: each family member chose his/her own meal and then the family ate together. Low-quality (i.e. the cheapest) tinned food was regularly served as a whole meal in low-income families, sometimes with sugary beverages for the children (and beer or soda for the adults), and the children sometimes perceived this regularity of low-quality food as 'boring' and 'unhealthy', whereas the variety of food was much wider in high-income families and nutrition was a preoccupation shared by parents and children.

'The evening meal, usually rice is all we eat in the evening (laughs). Rice, or rice-lentil, or rice-lentil-sausage. Or sometimes mum gets tired, she buys us ham and we eat a sandwich. It's always the same....' (11-year-old mixed-community boy, urban area)

The importance of food socialisation was highlighted, with the traditional roles of the parents as the primary source of the social norms for children. We noted that low-income parents lacked food and nutritional information and were sometimes less informed than their children. In these cases, food socialisation was generally weak with more autonomy about food choices given to the children. Several sources of food information were cited by the parents and children. First, recent public and institutional campaigns (through TV, local newspapers) from local public health servicesⁱⁱ were cited. These campaigns do not specifically target adolescents, but rather have been targeting 'all audiences' for fewer than ten years. In addition, health expert messages (doctors and health professionals for parents, and also school nurses, sports and biology teachers for children) were cited, as was information available on the web in culinary or general blogs. This last source of information, which sometimes also had commercial origins, sometimes seemed to contradict the institutional messages, which

some respondents were aware of, thus creating another form of cognitive dissonanceⁱⁱⁱ: one between nutritional knowledge and everyday home meals, and another between nutritional knowledge and the promise of instantaneous taste pleasure (especially among adolescents). Socialising with peers occurred through the canteens and take-away meals, and food exchanges were a medium of relationship for children.

No nutritional discourse was noted from the Melanesian families living for the most part in ‘tribes’, which are generally less equipped in social media technologies and thus less exposed to institutional messages. In contrast, we noted parents’ discourses on food related to longstanding resentments about ‘ancestral’ lands confiscated or bought at unfairly low prices by the French colonisers, the lack of symbolic meaning for food today, and the consequent prevalence of the monetised and unhealthy ‘exogenous’ foods that made up most of the daily diets. These discourses no doubt stem from discussions going back thirty years about the status of the Kanak people as native people. Moreover, the discussions are still ongoing, as evidenced by current political developments and the quest for independence. For Melanesian and Caledonian families living in rural and semi-rural areas, festive food meant copious amounts of local vegetables, fresh-caught fish, and locally bred or hunted animal products. This food was shared through local and tribal networks and was seen as desirable and ‘nostalgic’ by the Melanesian and Caledonian parents living in the urban area and having weak ties with rural families and no steady local product supply.

2.2 What are ‘eating well’, ‘good food’ and ‘bad food’ in New Caledonian families?

Concepts like ‘eating well’, ‘good food’ and ‘bad food’ are normatively constructed (Fischler 1979 & 1990, Pollock 2011, Poulain 2017). Like the notions of ‘good taste’ and ‘bad taste’ (Bourdieu 1979), they reflect norms and values that induce food representations and practices (Regnier & Masullo 2009) and include sociocultural influences, especially in overseas and multicultural territories like French Polynesia (Serra-Mallol 2008), La Reunion (Tibère & Poulain 2019) and New Caledonia. From this perspective, taking into account what people mean when they talk about ‘eating well’, ‘good food’ and ‘bad food’ was helpful in determining the category contents, as our objective was to determine whether these concepts were socially distributed with respect to the descriptions of yesterday’s and habitual meals.

From the face-to-face interviews with New Caledonian adolescents and their parents, we determined five main categories of ‘eating well’ and ‘good food’ related to, in descending order: nutrition, quantity of food, local provenance, commensality and personal taste.

The most cited signification of ‘eating well’ and ‘good food’ concerned *nutrition* and nutritional properties, with mentions of fruits and vegetables, no processed or industrialised food, and complete and balanced meal with various foods.

‘Eating well? Eating fruits and vegetables, regularly, and fresh products.’ (43-year-old European woman, urban area)

‘Eating well is eating a complete meal, with a starter, a main course and a dessert.’ (71-year-old Melanesian man, rural area)

These responses were given principally by the parents of families with high incomes and high levels of information, defining themselves mostly as European or urban Caledonian with moderate or high levels of physical activity, and they were particularly pertinent to their declared yesterday’s meals. Prescriptive norms from institutional messages, including the symbolic structure of a ‘complete meal’ as defined by Douglas (1972), had been internalised and influenced the foodways and practices of both parents and children.

Second, *‘eating in large quantities’* as a signification of ‘eating well’ was mentioned by the low-income families mainly in the urban area and the traditional Melanesian, Polynesian and Caledonian families in rural and tribal areas, recalling the notion of the ‘taste of necessity’ in Bourdieu’s work (1979). As seen previously in French Polynesia (Serra-Mallol 2008), for most eaters belonging to these communities ‘eating well is eating a lot’.

‘Eating well for us, it means “stuffing our stomachs”: eating until you’re not hungry anymore.’ (44-year-old Melanesian woman, rural area)

This response was given by parents and children with low or medium incomes but broad availability of local food, or by ‘traditional families’ (both Caledonian or Melanesian) regarding festive meals on Sunday or familial occasions.

‘I remember my grandmother saying “if we think it’s good food, we need to eat it again”, I think about that because I’ve been thinking about it for 20 years, about the quantities and so on. I mean, I remember my grandmother making us food, and if we said “oh, this is good”, then we’d have to serve ourselves again. Otherwise, we couldn’t say it was good if we were not going to have a second helping (...) For us, the Caledonians, the Caldoches, it’s not good when nothing is left in the pot after friends leave—that means that we didn’t cook enough. There has to be too much left over, so that everyone has been able to take what they want.’ (43-year-old Caledonian woman, urban area)

Then, *local and 'traditional' food* (mainly local vegetables) was perceived as 'organic' and 'healthy' by both adolescents and their parents, mainly among Melanesians and Caledonians:

'Good food? I think of local vegetables that come from the field, without fertiliser. I prefer the vegetables that come from the field, from the tribes, but I'm not going to buy them at the store, because I don't know how they were grown. Because I also have a field at home (i.e. in Northern Province), and I prefer to take food from my own field, my parents' field, or my grandmother's. But it's rare that I pick food up at the store. For me, this is the right diet: coming from the field, local, knowing there is no fertiliser or pesticide. We don't use fertiliser, not at all: only water. If it grows, it grows, if it doesn't grow, well it doesn't grow (laughs).' (38-year-old Melanesian woman, urban area)

We noted the importance of food from auto-production (gardening, hunting, fishing), food gifts and exchanges in rural areas, and food from rural and semi-rural areas given to urban families, as food auto-production and exchanges are still important sources of food availability in New Caledonia (Bensa & Freyss 1994). This also includes the Christian habit of the Sunday meal, with family members eating together.

'Eating well' meant '*commensality*' in some native European and Caledonian families: ritually sharing a meal with relatives (familial and festive dinners), at home or outside the home, with this latter having the special character of associating an expensive occasion with bringing the family together:

'When we say "we're gonna have a good meal", we all go together to the restaurant.'
(54-year-old European man, urban area)

Last, *personal taste* was significant for low-income families and the youngest respondents.

From these individual interviews, we drew two main conclusions about what 'bad food' means. 'Bad food' was principally seen as fattening and *sugary food*, but also as the *processed food* sold in convenience or take-away stores, and the importance of nutritional information was highlighted here. For children mainly, but also parents with low educational levels, it was linked to *personal food dislikes*.

Many responses pointed to a cognitive dissonance between the social norms related to food, mainly 'good' or 'bad food', and the everyday practices dictated by high food prices and constraining professional temporalities, which induced feelings of guilt for some mothers.

'It's temptation that drives everything, you're in an environment, everything is... everything fits and that's it. It's easier, you don't have to cook, but you have some money, so yeah, we go to a fast-food restaurant, to the "roulottes" (i.e. local food

trucks), to pizza places... It's not homemade, that is, it's ready-made... It's the environment, that's it. If I lived in a tribe and I didn't have a car, and... I wouldn't have that food, that's it. Now we have everything available around us....' (41-year-old Melanesian woman, urban area)

'A good meal is a balanced meal, but not yet made because not mastered! We still go to the store too often and forget about local products, fishing, hunting and pigs, whereas it would be nice to keep them because at least we know where it comes from!' (53-year-old Melanesian woman, rural area)

For some parents, eating what might be considered 'bad food' according to nutritional standards, like fattening take-away food and sugary beverages, was sometimes perceived as a shared 'moment of pleasure', a festive and commensal meal satisfying everyone:

'(Mom) From time to time, there are exceptions, we can get a pizza too, a Big Mac, about once a week, at most... (Dad) yes, yes, in general once a week, pizza or a Big Mac in the evening, something like that, to have fun together (Mom) yes, we all enjoy each other, but it's mostly about the children....' (discussion between a 54-year-old European dad and a 47-year-old European mom, urban area)

'Oh yes, we went to Noumea and we ordered a lot from Quick Burger, yes, the children did (laughs)! "Grandma, I want to eat that", and sometimes we have money, we spend 2000 XPF, or sometimes it's for everyone and then I say "choose what you want", well here, I have money, I'll pay (laughs). Sometimes it's like, I spend 5000 XPF and then I say "come on, if you want to go, order what you want already" (...) I don't personally want that kind of food, but I order. Yes, I only order and then, even the...uh... the pizzas. That's when he wants to eat that. "Grandma, I want to eat this", and then I say "we're not going to cook, we're going to order for everybody". Come on, here we go.' (78-year-old Melanesian woman, rural area)

For New Caledonian families, especially adults, two main normative categories of what 'eating well' means were highlighted. 'Eating well' meant following the nutritional recommendations for those families with high educational levels and high socioeconomic status, mainly Europeans and mainly living in the urban area, and this meaning was shared by parents and children with concrete applications in their diet. It also meant 'eating a lot' for the Melanesian and Caledonian families, suggesting economic and cultural dimensions, and these families also considered 'local' and traditional products or traditional foodways (though with distinct cultural values) as 'eating well', although the adolescents' food knowledge was often higher than their parents'. Social, economic and cultural determinants led to normative

representations and concrete habits regarding food and sometimes to cognitive dissonance between what the family members knew and what they actually did in everyday actions, with consequences for the familial socialisation process.

2.3 'Eating well' for New Caledonian adolescents

According to Garabuau-Massaoui (2002), the notion of 'eating well' has two main dimensions for young people. The first one is nutritional and the second one relates to the notion of 'taste' and preference and often contradicts the first dimension, thus with contradictory norms coexisting (Stok et al. 2014). The rules of nutrition are incorporated in childhood from family discourse and school discourse. But adolescence is a time of the inversion of norms, or 'social inversion, and rejection of the rules dictated by adult society' (Garabuau-Massaoui 2002). Thus, there is a temporary tendency for young people to ignore nutritional messages and standards that are often considered as too strict and complex and to focus on their preferences around 'jubilant taste' (Corbeau 2008).

For 'eating well' and 'good food', the adolescents' individual responses given during the structured group discussions were classified and quantified into five groups, in descending order of importance: nutrition, personal taste, local provenance, quantity and commensality:

According to their parents' answers, almost half the responses were related to '*nutrition*' (47% of the mentions, n=289), with answers like '*eating five fruits and vegetables per day*', '*eating less fattening, sugary or salty food*', '*moderate and varied food*', all of which are slogans from institutional campaigns for nutritional food and communicated by middle-school teachers and nurses. They also mentioned '*dairy products*' (from a French industrial advertisement: 'Dairy products are our friends for life'), '*moderately processed or take-away food*', '*balanced meals*' ('*eating well, it is eating balanced meals, dairy products, salad, and hot dishes*'), and nutrients. Girls were more willing to give this kind of answer than boys because of increasing concerns about their physical appearance. A contradiction seemed to appear between the meanings of 'eating well' (with normative and nutritional answers) and 'good food' (with answers referring to personal taste).

'Good food for me is what is good for health. But sometimes the right food, I don't eat it (laughs) because sometimes I don't like it. As I told you earlier, that's vegetables. Sometimes when I eat at the canteen, I leave them aside or sometimes I just don't take them.' (11-year-old Melanesian boy, rural area)

The link between nutritional considerations and health was almost general, although incomplete or partially misunderstood:

'Bad food? Well, food that makes you fat. Things, food that can make us sick, like sweets, for example. If we eat too many sweets, we are sick (interviewer: what kind of sickness?). Well, uh, we can have a sore throat, a cough.' (11-year-old Melanesian boy, urban area)

Bad food is rather fattening stuff like I don't know uh... burgers uh... Things too sweet or too fattening (...) If you take too much but really too much you can get diseases. And then you can get fat: it's easier to get fat when you take in a lot of fat.' (14-year-old European boy, urban area)

Second, two thirds of the responses concerned *'personal taste'* (22%, n=133), which was more pronounced than for their parents, with mentions of specific foods or *'traditional'* meals (*'spaghetti with meatballs and tomato sauce'*, *'pork with yam in the earth oven'*, etc.), and some of these responses revealed status (Bourdieu 1979): *'bread with canned fish'*, *'eating bread with butter'* (pain-beurre), which are food preparations that often replace the main course in the poorest households. But some responses related to sugary foods and drinks (*'candies, they're not healthy, but they taste good'*, sodas, etc.) and take-away food (*'nems'*, *'pizza'*, *'kebab'*, *'McDonald's hamburger'*, etc.), which emerged as symbolic supports to adolescent identity (Stead et al. 2011) and the medium of familial and festive meals. Younger adolescents in low-income families more frequently gave these answers.

Third, the responses concerned *'local food'* and *'traditional food'* (15% of responses, n=93) with mentions of local food products or meals (*'yam'*, *'sweet potato'*, *'plantain banana'*, *'passion fruit'* *'local pork'*, *'parot fish'*, *'deer'*, etc.) or traditional preparation (*'food prepared in a kanak [earth] oven'*, *'bougna'*, *'bami'*, *'co boe'*, *'raw fish with coconut milk'*, etc.) or ways of production (*'from the earth'*, *'family garden'*, etc.). The association of familial production and health was highlighted: *'it's a good thing to eat cassava, taro and yam, because they comes from the earth, it's "organic"'*. These answers were more frequent with Melanesian or Caledonian adolescents living in non-urban areas.

'Eating a lot' (4% of responses, n=25) was mentioned (*'feeling full'*, *'pig out on food'*, *'to not waste food'*, etc.) by the adolescents from low-income families living mostly in urban areas, but less frequently so than by their parents, probably because of less awareness of the economic constraints on food.

'Commensality' (4% of responses, n=23) was mentioned mostly by urban adolescents (*'eating with family and relatives'*) and referred to festive meals (birthday or marriage meals, eating at restaurants, etc.).

Other answers individually made up less than 2% of the responses: ‘fat corpulence’ (1.9%), ‘drugs and alcoholic beverages’ (1.8%), ‘food recipes and cooking techniques’ (1.1%), and ‘way of living’ (1.1%).

Two main categories of ‘bad food’ emerged from these group discussions. ‘*Non nutritional food*’ was mentioned most frequently (266 mentions, 62%) and referred to those foods that did not fit with the institutional messages about nutrition (‘candies’, ‘chocolate-nut spread’, ‘ice cream’, etc.), particularly foods or beverages with too much fat (‘french fries’, ‘greasy products’, ‘delicatessen’, etc.), sugar (‘Coke’, ‘Pepsi’, ‘Fanta’, ‘Oreo’, ‘Tulem’, etc.) or salt, especially in processed foods (‘Springles’, ‘burritos’, ‘sausages’, ‘canned meatballs’, etc.). These products were perceived as vectors of obesity and diabetes. ‘*Personal dislike*’ (101 mentions, 24%) including personal dislikes (‘spinach’, ‘cabbage’, ‘pepper’, ‘blue cheese’) and those foods focused on by institutional campaigns (sugary food, take-away food). Drugs and alcohol (7%), inedibles (3%), local foods (2%) and other factors (body concerns, price, etc.) individually made up less than 2% of the mentions.

The adolescents’ responses were underpinned by familiar institutional messages about nutrition (from exposure to media and teachers’ discourses), which created a gap with commercial messages and personal taste (‘*it tastes good and I like it, but it’s not healthy*’) and also with familial food habits (‘*we eat fatty food at home*’). Some of the adolescents expressed difficulties in understanding how these institutional messages applied to their everyday lives:

‘Is pizza good food? Actually, I don’t know, because there’s a lot of stuff on it, such as vegetables, mushrooms..., but we don’t really know what they’re putting on it, too, if there’s anything else. If we say, it’s all vegetables, it’s okay to eat it, but we don’t really know exactly.’ (13-year-old European boy, urban area)

Food from familial production was perceived as ‘organic’ and ‘natural’, but its availability depended on family location and social links with relatives living in rural areas. Similarly, food prepared at home was often seen as healthier than food bought outside.

The adolescents associated nutritional qualities with ‘eating well’ or ‘good food’, and minimal nutritional knowledge was shared by all, especially girls. Personal taste as the second category was not surprising for the adolescents, but local and traditional references and the association with environmental and ecological dimensions were also highlighted, as were the connections between parents and children regarding the food normative frame.

Discussion and conclusion

This study showed the social and cultural structure of the food culture in the families of adolescents living in urban and rural areas in New Caledonia and the importance of primary (familial) and secondary (institutions, media and peers) socialisation in the food representations and practices, which were also associated with socioeconomic and food availability factors. The socialising aspect of familial education and food organisation was relevant: young adolescents' food practices and representations were mainly transmitted by their parents and then largely influenced by institutional and commercial messages and peers, thus reflecting a mix of various food norms and values. The current environment of young New Caledonian eaters can be described as 'obesogenic', with the notable presence of fast-food restaurants next to schools and a profusion of 'snack' take-away stores among food retailers, including in rural areas. These great proximity and density, and poor variety of healthier or less healthy food supply influence daily diets (Polsky et al. 2016, Matias de Pinho et al. 2018). The foods sold in these stores partly accounted for the adolescents' well-documented taste for sugary and fattening foods that they ate alone, with their peers, or with their parents.

The meanings of 'eating well', 'good food' and 'bad food' were normatively constructed, through social and cultural significations (Simmel 1905, Halbwachs 1912, Bourdieu 1979, Fischler 1979 & 1990, Pollock 2011, Poulain 2017), and differed depending on which social group the family belonged to. The institutional messages heard or seen in New Caledonia are based exclusively on nutritional considerations: the eater is ultimately responsible for his/her food choices in a context of commercial influences, and bodily cultivation is seen as a personal endeavour. This contrasts with the traditional way of life, in which food and eating models are culturally and collectively determined, with bodies indexing the complexity of social relations within the collective. This situation seemed to produce cognitive dissonance both between the institutional normative discourse and the cultural sources referring to food and between the nutritional recommendations and the concrete monetary capabilities, as healthy food tends to be more expensive than junk food or basic food in a territory where food prices are already high. In this study, we showed that nutritional and institutional messages are fairly well internalised by New Caledonian families, mainly by the children because of the school prevention programs. This was correlated with socioeconomic factors (income and educational levels): families with both high income and high educational levels (mostly European families) generally shared good nutritional knowledge between parents and children, unlike families with low income and educational levels (mostly Melanesian), where the children often possessed more nutritional knowledge than their parents. But these

messages were sometimes misunderstood or contradictory to traditional values, like ‘eating a lot’ in the Oceanian communities of Polynesians, Melanesians and Caledonians, or they were out of step with monetary resources (‘healthy food’ was perceived as and turned out to be more expensive), thereby widening the social inequalities regarding food availability and thus health factors. Collisions and confusions between Western and local food models (with the importance of ‘eating a lot’ and traditional shared meals) were highlighted and can be read as a conative gap between social norms and daily practices, sometimes inducing guilt feelings in some parents because of monetary and time constraints.

On the other hand, the cultural representations of local food as ‘organic’ and ‘healthy’ that were shared by the parents and adolescents, the strong connection to the land, and food exchanges and collective meals as the main media of social relationships should all be used in institutional messages and nutritional campaigns to help build a sense of ‘ownership’ in this multicultural society. The challenge is therefore to legitimise food innovation through mixed models that make a point to include innovation in the traditional policy frameworks while still clearly preserving and enhancing the cultural practices perceived to be in danger. It is crucial to recognise the process of food heritage, which is a key factor of intergenerational ties, as it stands in opposition to contemporary food practices that are seen as ‘industrial’ and ‘individualising’. Such a hybridised food heritage thus constitutes the vector of collective and individual identity through the construction and claim of a shared system of norms and values as a set of material and immaterial elements constituting food cultures and defined by the community as a shared heritage (Bessière & Tibère 2011). Eaters often associate ‘local’ and ‘traditional’ with the idea of reassuring wisdom, nostalgia and indulgent food intake (Sedikides & Aiden 2008), and this stands in opposition to the anxiety created by industrial and processed foods that might be perceived as coming from an ‘invisible’ world with no information about their origin, as is the case in New Caledonia.

To conclude, in light of the social and monetary inequalities in New Caledonia, the availability of affordable nutritional food needs to be improved. The cultural aspects of food must be protected, as they offer alternative ways of ensuring healthy food availability, with one example being gardening and cooking programs for youth (DeCosta et al. 2017) rather than nutritional education alone. The positive perception of ‘local food’ as ‘organic’ and social and global relationships may help policymakers to spread a clear message on how to reach a sustainable food system in New Caledonia. Educational food programs with a special focus on youth are strongly recommended, but they should be open to the parents and other adults, who are often less informed than children. Through adapted messages that include

local food values and norms, these programs have the potential to enhance nutritional and cultural food knowledge and practices.

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ⁱ Locally, the ethnic category ‘European’ includes the ‘Caldoches’, the French descendants of families that settled New Caledonia generations ago, and the ‘Zoreilles’, meaning the French recently settled in the territory. During the fieldwork, this categorisation was expressed by the interviewees themselves (except for the Zoreilles) or after the question: ‘What community do you feel you belong to?’ To this question, some children gave two or more communities (referring to each parent’s or grand-parent’s community), and these children thus qualified as “mixed” (“metis”): we chose to retain this self-categorisation.

ⁱⁱ These public institutions are *la Direction des Affaires Sanitaires et Sociales de la Nouvelle-Calédonie* (DASSNC) with three regional branches (Province sud, Province nord, Iles), *l’Agence Sanitaire et Sociale de la Nouvelle-Calédonie* (ASSNC) for health programs, and the *Direction de l’Enseignement Primaire* (DENC) and the Vice-Rectorat of New Caledonia for school programs.

ⁱⁱⁱ By cultural dissonance, Lahire (2004) refers to the internalisation of one or more cultural practices in an individual that create a gap within a set of more or less homogeneous practices with regard to their legitimacy. This dissonance is explained by the multiplicity of instances of socialisation and social frames to which individuals are subjected. A cognitive dissonance occurs when a person holds contradictory beliefs, social norms or values, and it is typically experienced as psychological stress when they participate in an action that goes against one or more of them.