The Effects of Transmission of Malay Daily Food Knowledge on the Generation Practices

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Abstract

This study explored the effects of food transmission activities among the Malay ethnic’s food knowledge and the generation practice. Mother and daughter in a family selected as informant in this study. All information analysed using thematic analysis. Commercialization of ingredients, convenience food products, economy, educational level and lifestyles apparently reduced the practices of Malay traditional foods among the young generations. Mothers in particular can play a significant role in preserving the practice of Malay traditional foods. Parents should ensure that the traditional food knowledge is passed down to their generations to ensure the Malay food tradition retains and evolves further.

Keywords: Traditional food; food knowledge; food knowledge transmission; Malay ethnic

1. Introduction

Food can be seen as a midpoint of culture identity which belongs to specific society or ethnic and some elements of food preparation and consumption are the visible badges of identity (Rearick, 2009). Some argue preparation and consumption closely related to cultural of foods, the tools, techniques and ingredients for which food is prepared and it customs (Verbeke & Lopez, 2005; Vu, 2009; Thomas, 2004) and these one of the best ways to understand a culture and ethnic identity (Scholliers, 2001). Food is also act as a symbol to the society and ethnic groups (Kittler & Sucher, 2004). Crotty, l& Germov (2004)

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demystified food through its preparation and consumption symbolize and mark the class structure of individual or society. Similarly, different ethnic having their religious beliefs and food play significant in certain religious. Ing (2011) portray that food can be described as a part in the understanding of its function in terms of the religion. Murphy (2000) in the different vein articulated that food in the feasts or celebrations symbolize values and bring important meaning for cultures, ethnicity and religions.

Transferring the traditional food knowledge to the young generation is important in order to ensure the continuation of food culture evolves (Md. Nor et al., 2012; Mohd. Zahari, Kamaruddin, Muhammad, & Kutut, 2011). There is no exception for the Malay traditional food. Modernization particularly through technology and social advancement are believes to influence the deskilling cooking knowledge and practices among the young Malays. There are great concerns among nations about the potential loss in the context of traditional food knowledge and traditional food practices among the young generation. Traditional food represents the identity of ethnic culture and food tradition that developed by many generations.

The United Nations through the International Workshop on Traditional Knowledge emphasizes that traditional food knowledge should continuously be retained for future generation as they will carry out the profound spiritual and identity for self or as peoples (United Nations, 2007). Some ethnics are reported not only facing the problem of deskilling issue related to domestic cooking skills but start losing the traditional food culture owing to weakening of old generation to past down the traditional cooking knowledge the young generations (Stringer, 2010; Bowen & Devine, 2010). In Malaysia, preserving TFK or traditional food knowledge has received greater concern among the older generation, Malaysian Cultures association and The Ministry of Information, Communication and Culture and others government agencies. The concerned of many parties on this issue raises critical questions of how the transfer of Traditional Food Knowledge occur in Malay ethnic related to common daily food and how it has been passed down to the young generation. The main objective of this study is to empirically investigate the transferable process of Malay daily food knowledge with regard to preparation, method and skills.

2. Literature review

2.1. Malay ethnic

Malays are an ethnic group of Austronesia people predominantly inhabiting the Malay Peninsula, including the southernmost parts of Thailand, the east coast of Sumatra, the coast of Borneo, and the smaller islands which lie between these locations (Mohomed, Mohamad, & Hussain, 2010). The Malay ethnic group is distinct from the concept of a Malay race, which encompasses a wider group of people including the descendants of Indonesians, Philippines and people of Oceania (Hutton, 2000; Jalis, Zahari, Zulkifly, & Othman, 2009). Malays traditionally had a close identification with Islam and this religion remained ever since.

2.2. Traditional food

Traditional food referred as foods that have been consumed for many generations which includes all indigenous food plants found in that region or locality (European Union, 2007). In other words, traditional foods are those foods originating locally in an area with respect to the country, region, district or sub district (Ohiokpehai, 2003). Some ingredients and traditional food preparation represent an intrinsic part of the identity of regional foods and by association with the people who consume them (Fajans, 2006). Jordana (2000) stated that traditional food is a food that is differentiated through particular
qualitative aspects and has a specific cultural identity, while Kwik (2008) contended that traditional food may be interpreted as describing a process that does not change. It represents the collected wisdom of many generations of people who have learned how to produce and prepare food practiced by early generations in order to retain the tradition of the respective culture (Lyon, Colquhoun, & Alexander, 2003).

2.3. Traditional food knowledge

Traditional food knowledge integrates a number of academic disciplines such as social, cultural, and nutritional anthropology; human ecology, agriculture, population health, family studies, community development, and education, among others (Warren, 2001). In human ecology, traditional food knowledge is systems that are being acknowledged as valuable in protecting the integrity of natural resources with regard to food (Egeland et al., 2009; Kuhnlein, Erasmus, & Spigelski, 2009; Turner, Harvey, Burgess, & V.Kuhnlein, 2009; V.Kuhnlein, Donald, Spigelski, Vittrekwa, & Erasmus, 2009). In this context food knowledge is honed by generations of people in particular environments. Traditional food knowledge in ecology was used in Western communication since late 1970s and early 1980s (V.Kuhnlein et al., 2009). In sum, ecology traditional food knowledge according to Warren (2001) is generally referred to knowledge generated by communities and ethnic groups that usually pass the knowledge from one generation to the next through oral transmission that focused on the microenvironment in which food is generated. Mohd Zahari et al., (2011) posited that cooking methods, food skills and food decorum are inter-related and person-centered processes whereby it involved set of skills that are necessary to provide and prepare safe, nutritious, and culturally carry the value of traditional foods.

2.4. Food knowledge transmission

Over several decades, a transition or transmission in food preparation are observed to have an important impact on healthy eating Chenhall (2011). The individual behaviour participate in the food preparations have to adjust with the healthy social environment and modern technologies had simplified the food preparation processes (Engler & Stringer, 2011). Chenhall (2011) further contended that most common challenges in transmitting and enhance cooking and food preparation skills among young generations within the context of families include time, individual/familial food choice. Despite these, limited literatures have specifically uncover the medium or elements that work along with food knowledge transmission like food preparation, cooking method, cooking skill and food decorum (Bugge, 2003; Chenhall, 2011). The medium of food knowledge transmissions such as observing, hands on learning (helper/assistance), recipe reading and practices are believed to be crucial elements in food transmission processes (Bugge, 2010; Kamaruddin, Zahari, Radzi, & Ahmat, 2010; Langgat, Zahari, Yasin, & Mansur, 2011; Short, 2003). Many scholars argue, in any transmission processes or before practices can be done, adaption on the matter concerned must be first occurred (Lang & Caraher, 2001; Short, 2003; Warde, Cheng, Olsen, & Southerton, 2007). Adaptation in fact is a key that enabled humans to understand other individual’s skills, knowledge and experience. This approach opened the way for individual to familiarize and adjust the new knowledge gain which will lead or influence them to practice or utilize it (Cordes, 2004). In this context, food knowledge adaptation is the evolutionary process by which an individual either remain, modifies or altered his cooking abilities and customs to fit in to a current trend and demand (Boyd & Richerson, 2006) and adaptation is closely associated with practices (Boyd & Richerson, 2006). Chenhall (2011) identified five factors influencing the culture of cooking and food preparation practices within the home or domestic environment. These include:-
- Increased availability of food commodities (basic/raw and processed);
- Advances in technology for food storage, preparation and cooking, resulting in changes in the level of knowledge and skill required to cook;
- Shifting time and financial demands/realities related to labour market participation;
- Shifting family priorities and values; and
- Decreased opportunities for cooking and food preparation skill acquisition both within the home and public education environments.

3. Research methods

This study employs qualitative approach in understanding the transmission issues of Malay traditional food knowledge. The rationale of conducting qualitative study is because the information gathered provides an understanding of the process and the reasons for such behaviours rather than just determined by means of statistical procedures. The qualitative approach more subjective in nature and involve examining and reflecting on perception to gain an understanding of the social and human activities, that this research dealt with the elders’ engagement of perceptions and ideas in the practice of traditional Malay food. The informant selection for this study was split into two generation involved with two generations, mother (age between 50 to 70 years old) and daughter (age between 20 to 40 years old) in a family selected as informant. Malay settlement in Kuala Lumpur is the contextual setting for the study. All the information analysed using thematic analysis. A set of open ended interview questions developed to guide the informants to share their knowledge and experience in related to the transferable process of Malay cooking knowledge within generations.

4. Finding and discussion

Table 1. Informants’ profiles

| Informant     | Age | Education level  | Occupation   | No. Of children | Origin state |
|---------------|-----|------------------|--------------|-----------------|--------------|
| Mother        | 60  | Primary Level    | Housewife    | 6               | Johor        |
| daughter      | 39  | Diploma          | Bank Admin.  | 5               | Selangor     |
| Group Informant 2 |      |                  |              |                 |              |
| Mother        | 64  | Primary Level    | Housewife    | 5               | Perak        |
| daughter      | 40  | Diploma          | Doctor       | 3               | Kuala Lumpur |
| Group Informant 3 |      |                  |              |                 |              |
| Mother        | 58  | Secondary Level  | Retiree      | 8               | Selangor     |
| daughter      | 33  | Diploma          | Teacher      | 3               | Kuala Lumpur |
| Group informant 4 |      |                  |              |                 |              |
| Mother        | 66  | Primary Level    | Housewife    | 10              | Melaka       |
| daughter      | 33  | STPM             | Nurse        | 3               | Selangor     |
| Group Informant 5 |      |                  |              |                 |              |
| Mother        | 59  | Secondary Level  | Housewife    | 6               | Kedah        |
| daughter      | 31  | Degree           | Finance Officer | 5            | Kuala Lumpur |
4.1. The transmission of Malay traditional foods knowledge

Based on the information gathered, the transmission of Malay traditional food knowledge within Malay ethnic generation does occurred especially between mother and daughter. The process usually takes place once the daughters reach at aged seven years old and older. The findings also reveal that there is variety of methods identified in the mode of knowledge transfer practiced by Malay ethnic families. Observation, be an assistant, received instruction and task from mothers are the common modes of knowledge transfer practiced in Malay ethnic families. The respondents further notified that the transmission of food knowledge occurred informally or without they are noticed it and what they usually remembered are their mothers always give instruction and command when they are required to be participating in the kitchen activities with her. Each Malay family have their own method of preparing and cooking Malay traditional foods even though the name of the dish is similar. As the results there are many version of Asam pedas, Sambal Tumis, Masak Lemak Cili Padi, Masak Kari, Masak Kicap can be captured within Malay Ethnic families, therefore family members are the best party to carry the family food tradition through the food knowledge transfer to their young generations. Above is a table 2 which showing few answers obtained.

Table 2. The transmission process

| Group Informant 1 | Answer                                                                 |
|-------------------|------------------------------------------------------------------------|
| Mother            | My mom start forces me to assist her in kitchen work when I was seven years old. I usually was asked to peel onion, garlic and ginger. The instruction getting broader once I’m getting older. I gain food knowledge from assisting my mother. |
| Daughter          | My mom always calls me to assist her in cooking activities once I reach ten years old. She used to show me first before she allowed me to finish the rest. I learn about cooking from what my mom had shown me. |

| Group Informant 2 | Answer                                           |
|-------------------|--------------------------------------------------|
| Mother            | My mother is so fierce and I normally can only observe her do the cooking while assist her with the preparations before cooking. I improve my cooking skill once I got married but in same time I have to adapt my husband and my children food preference and taste. |
| Daughter          | My mother always beside me while she instructed me with the preparation and cooking task. In that way, she can easily monitor my performance and corrected it instantly once she noticed it. Actually I’m stressed up and could not understand why she always wanted me to be with her in the kitchen while I’m busy playing with my friends... |

4.2. The adaptation of Malay traditional foods knowledge of young generation

The informants expressed that Malay children always acknowledge and admire their mother cooking especially once they are moving out. In this point the children (especially the daughter) starts to replicate their mother cooking based from the observation or helping moment with their mother cooking in previous days. Some daughter adopt the knowledge gained while others adapted the knowledge gained from their mother due to the development of cooking technology and restriction of time to be in the kitchen for long hours. Marriage commitment also contributes to the adaptation of the family traditional foods like the adjustment of spicy taste, the texture and the ingredients of the food due to the preference of the husbands and their kids. In this sense it indicate that the adaptation of Malay traditional food
knowledge depends on how the knowledge is been transferred and the factors that influence the practice of the traditional food practice. Below is a table which showing few answers obtained.

Table 3. The adaptation process

| Group Informant 3 | Answer                                                                                                                                                                                                 |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mother            | We used to cook food using firewood for years before we change to gasoline stove. In year 1980 my husband started to purchase gas stove...From this scenario I learned that the method of cooking our food is getting easier, faster and cleaner. I can’t forget how tedious in using the firewood for cooking, my cloth get smoky smells and my face get blackish.... |
| Daughter          | In my daily cooking I’ll make sure that I’ll maintain the texture and taste of the traditional food that I adapted from my mom’s cooking and same like my husband he will requested me to adapt his mom cooking and her menu to be in our daily cooking list. With regular practice of Malay traditional food I feel that cooking this food is not that difficult as what other thought most important practice make perfect... |
| Group Informant 4 |                                                                                                                                                                                                       |
| Mother            | In those time most mother’s is house wife, they have ample time in the kitchen compare to my generation we have to struggle with time to manage household responsibilities and work duties. In other hand we are lucky because the availabilities of the convenience foods which aid to reduce the cooking period. |
| Daughter          | My grandmother food preparation and cooking style was very detail compare to my mother. She used fresh ingredients and love to cook food from scratch. I gain Malay traditional food knowledge more from my grandmother while my mother show me the simple (short cut) way by using convenience ingredients, food processor and microwave oven. |
| Group Informant 5 |                                                                                                                                                                                                       |
| Mother            | Last time, in order to prepare Malay traditional meal we have to spend time 2 – 3 hours for the preparations and cooking. The routine was so tiring because all the preparation needs to be done manually... |
| Daughter          | My mom always told me that we are lucky because cooking routine and preparation for Malay traditional foods are easier and even faster due to the availability of food machinery and convenience foods in the market. |

4.3. The factors that effect Malay traditional food practices to young generation

All mothers to some extent agreed that some elements without doubt had a significant impact on the young generation practices on the Malay food tradition. Majority of them pointed out that the advancement or modernization lessens the practices. In this context, they referred to the advancement or modernization as process of change or transformation which involved education, entertainment, environment and lifestyle. All of them admitted that they had gone through and experienced the changes. Some of the factors are lessening the practices among the young generation revealed during the interview sessions and are now discussed in Table 4.
Table 4. Factors that effect Malay traditional food practices

| Group Informant 3 | Answer |
|-------------------|--------|
| **Mother**        | Fast foods like KFC, McD, Pizza Hut have made the young generation more choice to choose for their daily meal. Previous days we don’t even have a Malay Restaurant as much as today and we normally can’t afford to dine out with family. |
| **Daughter**      | There are many selections of food outlet available (from western food, Chinese food, Indian food, Thai food and Malay food) if we unable to cook. Normally we can manage to dine out but we cannot do it as a routine because it might cost us a lot...To dine out with a family of four will cost us at least RM 50 – RM 200... |

| Group Informant 4 | Answer |
|-------------------|--------|
| **Mother**        | After working hours, most of us wanted to prepare meals as soon as possible... as the results the convenience food become our preferred choice, it affordable, easy to prepare and fast... |
| **Daughter**      | These days you can see how many families dining out and buy foods from restaurants or food stalls to take away. Like myself, sometimes I also prefer buying food from restaurants. Buy ready foods actually make my life less burden and my kitchen will be clean and tidy... |

| Group Informant 5 | Answer |
|-------------------|--------|
| **Mother**        | Those days only one person in a family is working, so our income is limited and we can’t afford to dine out...Like our family most of the fresh herbs and some local vegetables we grown it at our back yard to reduce our food purchasing cost. Furthermore I’m not working... |
| **Daughter**      | In future they (future generation) will not be familiar with our own traditional dishes. Everything is made simple for you...readymade product in the market; the restaurants are selling variety dishes. This makes their life much easier. Slowly they will lose their cooking skill. |

Most of the mothers strongly believe that technology through the commercialization of ingredients and convenience including Malay traditional foods has slightly altered the preparation (cooking equipment) as well as their consumption (eating utensils). The traditional ingredients had slightly changed due to the advancement of the food processing industry which enhances the varieties of new ingredients for Malay foods. The appearance of commercial ingredients in the market has also influenced the alterations. Various forms of improvised ingredients such as powders, sachets, frozen, chilled and dried ingredients are available for daily as well as festival food preparation. Social advancement (the economy, educational level and lifestyles) is also a major factor moderating the alteration processes which lessening the practices among the young generation. The majority of them claimed owing to working and economic pressure limits the young generation engagement with kitchen work therefore lessening the practices of Malay traditional food. Despite these, most mothers who involved in this study stressed that they are still preferred to use the traditional Malay ingredients and style of cooking although using the modern equipment. It is interesting also to note that all mothers are bit worry with regard to the commercialization of Malay food products which may result to unfamiliarity of the traditional food among the later generations. Most of the daughters strongly admitted that they love their mother typical cooking however less able to practice accordingly owing to limited time and hectic working life. With that constraint, many revealed lack of time, distance of working place and tiring influence their traditional Malay cooking practices thus find alternative for their family food. This is evident when majority of young mothers in this sample agreed that buying ready cooked food (bungkus/tapau) lessen their house duty especially during weekdays. The most remarkable finding obtained from the young mothers is that
they always combine simple traditional Malay cooking with convenience products for their family food which in turn decreasing the practices of typical Malay traditional food. Some the given answered obtained from both interviewed with mothers and daughters are presented in the table above.

5. Conclusion

Commercialization of ingredients, convenience food products, economy surroundings, educational level and lifestyles development apparently influenced and reduced the practices of Malay traditional foods among the young generations. Young generations always acknowledge and admire their mother cooking; therefore mothers in particular can play a significant role in preserving the practice of Malay traditional foods. Parents should ensure that the traditional food knowledge is passed down accordingly instead of unstructured or spontaneously to their generations to ensure the Malay food tradition retains and evolves further. Food knowledge transmission enables young generation to get connected with the traditional food practices that carried out from generation by generations. A lack of available studies looking at the transfer process in the Malaysian context means the insights and in-depth understanding obtained from this study directly contribute to the global sociological food literature as well as to Malaysian food literature. In other words, the originality of this research will create or expand the Malaysian food body of knowledge and extend and enhance the gastronomic literatures globally. In addition, this study will also act as a benchmark and basis for the future and for other researchers to look further on this issue or other aspects of food related cultural studies.

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References

Boyd, R., & Richerson, P. J. (2006). *Culture, Adaptation, and Innateness*. In: The Innate Mind: Culture and Cognition: eds.

Bugge, A. B. (2003). Cooking - As Identity Work. *Paper presented at the The 6th Conference of the European Sociological Association*, Murcia, Spain.

Bugge, A. B. (2010). *Young people’s school food styles*. Young, 18(2), 223-243. doi: 10.1177/110330881001800206

Chenhall, C. (2011). Improving cooking and food preparation skills: *A Synthesis of the Evidence to Inform Program and Policy Development* (F.-C. P. H. Network, Trans.). Vancouver Canada: Public Health Agency of Canada.

Cordes, C. (2004). The Human Adaptation for Culture and its Behavioral Implications. *Journal of Bioeconomics*, 6(2), 143-163. doi: 10.1023/B:JBIO.0000040408.87815.a9

Egeland, G. M., Roberts, G. C., Kuluguqtuq, J., Kilabuk, J., Okalik, L., Soueida, R., & Kuhnlein, H. V. (2009). Back to the future: using traditional food and knowledge to promote a healthy future among Inuit Indigenous Peoples’ food systems: the many dimensions of culture, diversity and environment for nutrition and health. Rome: Food and Agriculture Organization of the United Nations.

Engler, R., & Stringer. (2011). *Food selection and preparation practices in a group of young low-income women in Montreal*. [doi: DOI: 10.1016/j.appet.2010.12.004]. *Appetite*, 56(1), 118-121.

European Union. (2007). *European Research on Traditional Foods*. Belgium: Publications.europa.eu.

Fajans, J. (2006). Regional food and the tourist imagination in Brazil. *Appetite*, 47(3), 389.

Hutton, W. (2000). *The food of Malaysia: Authentic recipes from the crossroads of Asia*. Singapore: Singapore: Periplus edition (HK) ltd.

Jalis, M. H., Zahari, M. S., Zulkifly, M. I., & Othman, Z. (2009). Malaysian gastronomic tourism products: Assessing the level of their acceptance among the western tourists. *South Asian Journal of Tourism and Heritage*, 2, 31-44.
Jordana, J. (2000). *Traditional foods: challenges facing the European food industry*. [doi: 10.1016/S0963-9969(00)00028-4]. Food Research International, 33(3-4), 147-152.

Kamaruddin, M. S. Y., Zahari, M. S. M., Radzi, S. M., & Ahmat, N. H. C. (2010). Modernization and Malay Matrimonial Foodways in the Rural Area. *Paper presented at the TEAM Conference, Taylor's University.*

Kuhnlein, H. V., Erasmus, B., & Spigelski, D. (2009). *Indigenous Peoples’ food systems: the many dimensions of culture, diversity and environment for nutrition and health*. Rome: Food and Agriculture Organization of the United Nations.

Kwik, J. C. (2008). *Traditional food knowledge*: A case study of an Immigrant Canadian "foodscape". Environments, 36(1), 59-74.

Lang, T., & Caraher, M. (2001). Is there a culinary skills transition? Data and debate from the UK about changes in cooking culture. *Journal of the Australian Institute of Home Economics* 8(2), 2-14.

Langgat, J., Zahari, M. S. M., Yasin, M. S., & Mansur, N. A. (2011). The Alteration of Sarawak Ethnic Natives' Food: It's Impact to Sarawak State Tourism. *Paper presented at the 2nd International Conference on Business and Economic Research*.

Lyon, P., Colquhoun, A., & Alexander, E. (2003). *Deskilling the domestic kitchen*: national tragedy or the making of a modern myth? Food Service Technology 3, 167-175.

Md. Nor, N., Md. Sharif, M. S., Mohd. Zahari, M. S., Mohd. Salleh, H., Isha, N., & Muhammad, R. (2012). *The Transmission Modes of Malay Traditional Food Knowledge within Generations*. Procedia - Social and Behavioral Sciences, 50(0), 79-88. [doi: 10.1016/j.sbspro.2012.08.017]

Mohamed, A. E., Mohamad, S., & Hussain, H. (2010). Food gifts in Kelantanese Malay Weddings: *Custom and Interpretation*. *Jurnal e-Bangi*, 5(1), 103-115.

Mohd. Salehuddin, M. Z., Mohd. Syaquif, Y., Mohd. Zain, K., & Langgat, J. (2011). The level of alteration of ethnic native food: A case of Sarawak, Malaysia. *International Journal of Humanities and Social Science*, 1(6), 137-145.

Mohd. Zahari, M. S., Kamaruddin, M. S. Y., Muhammad, R., & Kutut, M. Z. (2011). Modernization, Malay Matrimonial Foodways and the Community Social Bonding. *International Journal of Human and Social Sciences*, 6(3), 10.

Ohiokpehai, O. (2003). Promoting the Nutritional Goodness of Traditional Food Products. *Pakistan Journal of Nutrition*, 2(4), 267-270.

Short, F. (2003). *Domestic cooking practices and cooking skills*: findings from an English study. Food Service Technology 3(4), 177-185.

Turner, N. J., Harvey, T., Burgess, S., & V. Kuhnlein, H. (2009). *The Nuxalk Food and Nutrition Program*, coastal British Columbia, Canada: 1981–2006 Indigenous Peoples’ food systems: the many dimensions of culture, diversity and environment for nutrition and health. Rome: Agriculture Organization of the United Nations.

V. Kuhnlein, H., Donald, M. M., Spigelski, D., Vittrekwa, E., & Erasmus, B. (2009). *Gwich’in traditional food for health*: Phase 1 Indigenous Peoples’ food systems: the many dimensions of culture, diversity and environment for nutrition and health. Rome: Agriculture Organization of the United Nations.

Warde, A., Cheng, S.-L., Olsen, W., & Southerton, D. (2007). *Changes in the Practice of Eating*. *Acta Sociologica*, 50(4), 363-385. [doi: 10.1177/0001699307083978]

Warren, M. (2001). *The role of the global network of indigenous knowledge resource centers in the conservation of cultural and biological diversity*. In L. Maffi. (Ed.), *On biocultural diversity* (pp. 446-461). Washington: Smithsonian Institute Press.