Exploring Traditional Food Preferences
Over Age and Gender Among the
Monpa Tribes of West Kameng
District, Arunachal Pradesh (India)

Abstract: Based on the physiological and psychological motivations, this research examines the preferences of traditional food across age and gender among the Monpa tribes of West Kameng district of Arunachal Pradesh. The survey was administered to 150 respondents (above 18 years of age) in 30 (thirty) Monpa villages of West Kameng district. The schedule about their preferences was filled up for 11 traditional food items and 1 other category (i.e. non-traditional item) using a 5-points rating scale. The respondents were stratified into three groups based on age viz. 18 - 34 years, 35 - 54 years, and above 55 years. 50 respondents from each category were sampled, of which 50% were female. The weighted average and ANOVA have been applied to test the hypothesis at a 95% level of significance. The results show significant age-based preferences and insignificant gender-based preferences.

Key words: Traditional food, Preferences, Age, Gender, Monpa tribes.

Food consumption evokes psychological comfort and a state of pleasure in the people. The human preferences and knowledge concerning food and beverage items and their preparation is complex and varies from place to place. The people behave in a particular manner because of their habits, ideology, and resources available. Generally, the social-affective contexts can influence food preferences. People living in proximity to their environments are capable of observing, identifying, monitoring, and reacting to variations in resource availability, ecological relationships, food access, use, and biological responses to particular circumstances. Several types of peculiar food items are processed and prepared by them that are location-specific and made with the help of traditional knowledge.

The people of Arunachal Pradesh like any other tribe have ethnic food items prepared traditionally from the available resources. In short, the way of living of these people is directly or indirectly based on the natural vegetation or environment. The Monpa tribes are inhabited in West Kameng and Tawang districts of Arunachal Pradesh. They possess peculiar knowledge about food items which are largely based on the available resources and crops in the region. However, with time, the preparation and use of traditional food are decreasing due to the availability of modern food items. It is reported that the knowledge level about traditional food varies across age and gender. Singh et al. reported that the new generations of the Monpa community have undergone significant changes in their diets over the past 30 years under the influence of modern crop varieties, materialistic life, and current trends of increased use of commercially processed food. The majority of the tribal population had an understanding of the preparation methods and traditional values of ethnic food and beverage. Passing on the knowledge and techniques over generations is the key to the preservation of ethnic knowledge on the preparation and usability of food items. However, the dynamic world and physiology and psychology have a role to play in people’s preferences for traditional food items. Therefore, it is important to understand the age and gender-based preferences of various traditional food items.

Many research works have been carried out on the linkages between food preferences and culture, socio-economic factors, gender, age, and religio-cultural beliefs associated with the conservation of nature. However, much of the study has considered children and adolescent choices, and very little importance was given to traditional food items. Thus, a humble effort has been put forth in the present study to fill the research gap in the age and gender-based food preferences among the adults of the Monpa community. The following hypotheses were formulated in this study:

Hypothesis 1: The traditional food preferences vary between the age groups.

Hypothesis 2: The traditional food preferences vary between males and females.

Materials and Methods: Study Area: The study has been carried out in the West Kameng district of Arunachal Pradesh. The district shares an international border with Bhutan in the west, and district boundary with Tawang in
the north and northwest, East Kameng in the east, and a state boundary with Assam in the south (Fig. 1). The district is inhabited by five major tribes of Arunachal Pradesh viz. Aka (Hrusso), Bugun, Monpa, Sajolang, and Shertukpen. The Monpas are mostly found in the Kalaktang and Dirang CD blocks. As per the 2011 Census, the Monpas of West Kameng district numbers at 20,863 were distributed in 142 villages in 6 (six) circles viz. Dirang (89), Kalaktang (24), Balemu (13), Thembang (12), Bomdila (3), and Sinchung (1).

The Monpas are mostly non-vegetarian and fond of spicy food items. They largely depend on animals and their products like yak, cow, sheep, goats, and horses. The majority of them practice permanent subsistence agriculture. The biomass of tree leaves and cow dung are used as fertilizers. However, with the advent of cash crops, modern chemical fertilizers and pesticides have also penetrated their agricultural practices. Their culture is highly reflected in the peculiar architecture, wood carving, Thangka painting, carpet making, weaving, and colourful dresses and ornaments.

Data Collection: A schedule was developed to gain insight into the traditional food preferences of the Monpa community. The schedule development was guided by the review of their food items and pre-survey discussions with the local people and experts. The population has been divided into three age groups viz. 18-34 years, 35-54, and over 55 years following Wansink et al. The 5-points rating scale was used to obtain the preferences of 11 traditional food items and a non-traditional item. The preference rating scale has been predesigned viz. 5 for highly preferred or favourite (HP), 4 for preferred or likesome (P), 3 for casually preferred or it depends (CP), 2 for not preferred or dislikes a little (NP) and 1 for highly not preferred or strongly dislike (HNP) by following Caine-Bish and Scheufe. The food items have been identified and photographed for better visual appreciation.

Data Analysis: The information has been tabulated and analyzed with the help of statistical tools viz. Statistical Package for Social Sciences (SPSS) and Microsoft EXCEL. The weighted average has been derived from the preference ratings of the respondents using Equation (1).

$$\bar{X}_w = \frac{\sum WX}{\sum X}$$

where, $\bar{X}_w = \text{Weighted Mean}$, $W = \text{Weight/Rank}$, $X = \text{Number}$

The One Way ANOVA has been used to test the hypotheses. Besides, observations and open-ended discussions largely added significant information. The secondary data like published research articles, statistical abstracts, and unpublished works have been key in understanding and deriving suitable conclusions.

Results and Discussion: The Monpa tribes of West Kameng district have varieties of food items like Phinang Thukpa, Khrangpa, Bogpoi/Zan, Putang, Khazi, Tenthuk/Baksa, Solu Kamtang, Bamu Kamtang, Dressi/Bressi, Kyola/Chola, Chameen, Chur Kamtang, Kakung, Momo, Khura/Khurba, Khabse, etc. (Fig. 2). They are fond of spicy food items as three items of spicy category viz. Chameen, Solu Kamtang, and Khazi are found to be favourite for 36% of the respondents. The Phinang Thukpa survey was conducted in 30 (thirty) randomly selected villages. In total, 150 individuals were interviewed between May and July 2019 through personal and telephonic interviews. Of the respondents, 50% were female and 33% each in the age group of 18-34, 35-54, and over 55 years. The 5-points rating scale was used to obtain the preferences of 11 traditional food items and a non-traditional item. The preference rating scale has been predesigned viz. 5 for highly preferred or favourite (HP), 4 for preferred or likesome (P), 3 for casually preferred or it depends (CP), 2 for not preferred or dislikes a little (NP) and 1 for highly not preferred or strongly dislike (HNP) by following Caine-Bish and Scheufe. The food items have been identified and photographed for better visual appreciation.
is also one of the favourite traditional food items of the Monpa people. The young age people constituting 12% of the respondents consider non-traditional food as their favourite (Table 1). Rice and millet are the main food of the Monpas\(^1\). They prefer a heavy meal in the morning which gives them the energy to work hard in the harsh geographical conditions to produce agricultural products and move with the animals (mostly Yak). Therefore, Bogpoi/Zan (flour of millet) and Phinang Thukpa made from corn are highly preferred by them. Besides, Putang (flour of buckwheat) is also preferred. These dishes are taken with Solu Kamtang and Chameen that are made from chili. Chili or spicy items form the core of the Monpa dishes. These food items form integral components in their day-to-day, socio-cultural, and spiritual occasion food packages/diets. Their food selection and consumption are the cumulative experiences based on trial and error gained from the time immemorial\(^5\).

The results in Table 2 reveal that the preferences for traditional food significantly vary between the age groups (P<0.05). The traditional food items such as Phinang Thukpa, Bogpoi/Zan, Putang, Khazi, Khrangpa, and Chola/Kyola are more preferred by the higher age groups. However, spicy items like Chameen and Solu Kamtang are almost equally preferred by all age groups. Fast food such as Dressi/Bressi and Momo are highly preferred by the young age groups (18-34 years). A transitional variation can be observed between young and old age groups, where the old-aged prefers traditional food items and the preference of young groups ranging between the modern dish and traditional fast food. The overall average for the preference ratings of listed traditional food items reflects higher preferences among the above 55 age group (3.5) compared to 3.0 among the 18-34 age group. In general, with the descending age group, the preference for traditional food items also goes down. Hence, the loss of traditional culture and ethnomedicinal related aspects of the important traditional food and beverages of the Monpa tribes has been a cause of concern in recent times\(^1\). The present scenario states that the preference of the younger generation is shifting towards fast food, junk food, or readymade and modern food items. Such a shift in food preferences is observed all over the world\(^8,10,13\) due to various reasons such as the old-aged people has less mobility, thus doesn’t change their taste. At the same time, younger people have higher mobility, interacting with different cultures, thus changing their taste over time. The higher mobility and non-availability of traditional food items in distant places further ease such changes. Young-age people have also

| Traditional food  | Favourite food | Percentages |
|------------------|----------------|-------------|
| Phinang Thukpa   | 20             | 13.33       |
| Bogpoi/Zan       | 13             | 8.67        |
| Putang           | 12             | 8.00        |
| Khrangpa         | 13             | 8.67        |
| Chameen          | 21             | 14.00       |
| Solu Kamtang     | 22             | 14.67       |
| Khazi            | 11             | 7.33        |
| Chola/Kyola      | 4              | 2.67        |
| Baksu/Thenthuk   | 1              | 0.67        |
| Dressi/Bressi    | 1              | 0.67        |
| Momo             | 14             | 9.33        |
| Non-traditional  | 18             | 12.00       |
| Total            | 150            | 100.00      |

Fig. 2: Traditional food items of Monpa tribe (Photo by: T. D. Bapu & B. J. Gautam)
access to modern junk and fast food which are easily available even in distant villages under the influence of modern trade, transport, and communication.

**Table 2: Age-based Preference Rating of Traditional Food Items**

| Traditional food | Preference rating |
|------------------|-------------------|
|                  | 18 - 34 | 35 - 54 | > 55 | All |
| Phinang Thukpa   | 3.1     | 3.6     | 4.0  | 3.6 |
| Bogpoi/Zan       | 2.7     | 3.1     | 3.8  | 3.2 |
| Putang           | 2.7     | 3.1     | 3.7  | 3.2 |
| Khazi            | 2.8     | 3.2     | 3.8  | 3.3 |
| Chola/Kyola      | 2.0     | 2.9     | 3.4  | 2.8 |
| Dressi/Bressi    | 3.2     | 3.0     | 2.7  | 3.0 |
| Khrangpa         | 2.5     | 3.2     | 3.8  | 3.2 |
| Chameen          | 3.5     | 3.7     | 3.7  | 3.6 |
| Solu Kamtang     | 3.6     | 3.8     | 3.9  | 3.8 |
| Momo             | 3.7     | 3.5     | 3.2  | 3.5 |
| Baksa/Thenthuk   | 3.3     | 3.0     | 2.9  | 3.1 |
| Average          | 3.0     | 3.3     | 3.5  | 3.3 |

ANOVA: 7.06  
p-value: 0.0256

Table 3 shows the results of Hypothesis 2 “if the traditional food preference varies between males and females”. Since the calculated P-value is more than 0.05 at a 5% level of significance, the result is insignificant. Hence, the preferences for traditional food items do not vary between males and females. The overall average also reveals the same result. However, in particular, there is a slight variation in the food choices between males and females. For instance, males prefer heavy food slightly higher than females, and females have higher preferences for spicy and light food items. Many studies have consistently reported gender-dependent differences in food choices, women generally showing a healthier pattern of food choice. However, it was found different in traditional food preferences among the Monpas in this study.

**Table 3: Gender-based Preference Rating of Traditional Food Items**

| Traditional food | Male | Female | All (Mean) |
|------------------|------|--------|------------|
| Phinang Thukpa   | 3.7  | 3.5    | 3.6        |
| Bogpoi/Zan       | 3.4  | 3.1    | 3.2        |
| Putang           | 3.2  | 3.2    | 3.2        |
| Khazi            | 3.1  | 3.5    | 3.3        |
| Chola/Kyola      | 2.9  | 2.8    | 2.8        |
| Dressi/Bressi    | 3.0  | 3.0    | 3.0        |
| Khrangpa         | 3.3  | 3.2    | 3.2        |
| Chameen          | 3.5  | 3.7    | 3.6        |
| Solu Kamtang     | 3.8  | 3.8    | 3.8        |
| Momo             | 3.5  | 3.6    | 3.5        |
| Baksa/Thenthuk   | 3.1  | 3.0    | 3.1        |
| Average          | 3.3  | 3.3    | 3.3        |

ANOVA: 1.905  
p-value: 0.945

Conclusion and Suggestions: Social-affective, resource availability, religio-culture, and biological responses can influence food preferences. The Monpas of West Kameng district have developed a livelihood in context to their environment through observation, identification, and cultural demands. Their traditional knowledge-based processing and preparation of several types of peculiar food items are location-specific which is being passed down from generation to generation. However, the modern world has limited such scopes and the changing preferences of traditional food items had a direct impact on the ignorance of such knowledge. At the same time, the changes in the cropping pattern and crop selection among the villagers, whereby the cash crops have overtaken the traditional crops have led to lesser scope for the preparation of traditional food items.

They consume varieties of traditional food items. Apart from the 11 (eleven) listed traditional food, various other items are available that play a vital role in the dietary habits of the people. Since, they inhabit the cold climatic areas, cheese, churpi (Paneer) and meat form the base for various traditional food. They are very fond of spicy food. The preference for traditional food varies between the age groups where older people prefer traditional food items more than the younger groups. The young people (18-34 years) are in the transitional stage by preferring both traditional and modern food items. The trend shows a decreasing preference for traditional food with descending age groups. In general, with the descending age group, the preference for traditional food also declines. Thus, it can be predicted that the preference for traditional food among the new generation will further go down and such food items will become an occasional food only. So, such studies are essential to understand the mode of preparation, preferences, and nutritional value of traditional food and impacts on health due to changes in food habits. It will also strengthen the understanding of the nutritional values.
of traditional food that are healthier and more organic in nature. Further, proper documentation and promotion of the mode of preparation of traditional food would preserve traditional knowledge which is dwindling rapidly. Therefore, the traditional food tourism program would assist the younger generations in learning and promoting such food items. Further, such programs would also generate revenues for the local people and promote organic farming.

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