

## Emotional Expression of the Malaysian Chinese Towards the Malay Cultural Heritage Visualization

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**Abstract:** It is believed that the historical background of the Chinese community in Malaysia has significant impact on their emotional dimension towards the Malay cultural heritage, which is the heritage of the major ethnic group in Malaysia. This study aimed to examine the emotional expression of the Chinese ethnic towards Malay cultural heritage images in comparison to the Malay ethnic. Three different type of Malay cultural heritage images (Malay traditional food - *ketupat*, Malay traditional dresses - *baju melayu/baju kurung* and Malay traditional game - *wau bulan*) were presented to the Chinese (N=80) and the Malay (N=116) participants, recruited from the undergraduate population of a local institution. Participants self-rated their emotional feedback using a non-verbal pictorial measure (Self-Assessment Manikin) which measured the range of emotional response (valence domain), ranging from one (low valence) to nine (high valence). The Chinese indicated similar level of emotion expression as the Malays in response towards the images of Malay cultural heritage. Both Chinese and Malay showed higher self-rated emotional expression for traditional food image (i.e. *ketupat*) than non-food images (i.e. *Malay dresses* and *wau bulan*). Implication of this study points to the effect of acculturation on the emotional development of the ethnic minority and the emotional property of the food image in constructing the emotion.

**Keywords:** Cultural heritage, Emotion, Acculturation, Ethnic minority, Valence.

### Introduction

#### Historical Background of the Chinese – An Ethnic Minority in Malaysia

Malaysia is a multi-ethnic and multicultural country comprises of three main ethnicities. The Malays are the largest ethnic group in Malaysia followed by the Chinese as the second largest ethnic group (making up 67% and 25% of the population, respectively). The Indians represents the third largest ethnic group in the country, accounting for approximately 7.3% of the Malaysian population (Department of Statistics Malaysia, 2016). These ethnic groups live and practice their own set of cultures and traditions whilst adhering to different religious faiths.

The migration of the Chinese people to Malaysia (formerly known as Tanah Melayu) occurred hundreds of years ago (Othman, 2002; Rostam, 1984; Shafie & Zainudin, 2000; Yigit & Tatch, 2017). The immigration of the first group of Chinese to Malaysia is believed to be around the 15<sup>th</sup> century following the marriage of the China princess – Hang Li Poh to the Sultan of Malacca (the famous state in Malaysia). Following this marriage, Princess Hang Li Poh brought together the nobles, followers, and servants from China who later married the locals and formed the Chinese community. The emergence of the Chinese population in Malaysia was also due to economic factors. It is said that the British colonialist opened tin mining sites in Tanah Melayu and brought Chinese workers from China to work at these sites. In addition, Malacca was also considered a strategic location in South East Asia that connects traders around the world. This had allowed merchants to stop at the port of Malacca, to trade their wares, as well as barter with other merchants. This relationship that operated on the basis of trade had allowed the consistent, continuous, and harmonious presence of the Chinese people in Tanah Melayu over generations (Othman, 2002; Rostam, 1984; Shafie & Zainudin, 2000; Ullah et al., 2016).

#### Valence Domain in Emotional Reaction

Valence is a core component in one's basic emotional life (Barrett, 2006a, 2006b) and has been described in many psychological models (Ortony, Clore, & Collins, 1988; Ortony & Turner, 1990; Rolls, 1999; Russell, 2003; Smith & Ellsworth, 1985; Scherer, 1984). The element of valence in human emotion is a subjective experience of pleasantness and unpleasantness which comes from one's intrinsic attraction (positive valence) or

aversion (negative valence) to object or non-object stimuli. Thus, emotional pleasantness is a dimension of emotion that can be evoked by various sources such as objects, events, and situations that are positively or negatively valenced. Consequently, emotions of the same valence (i.e. whether or not the emotion has positive or negative valence) are said to exert similar influence over our judgments and choices (Frijda, 1986). Parameters used in studying emotion such as peripheral nervous system activation (Bradley & Lang, 2000; Cacioppo, Bernston, Klein, & Poehlmann, 1997; Cacioppo, Bernston, Larsen, Poehlmann, & Ito, 2000), facial movements (Cacioppo et al., 1997; Cacioppo et al., 2000; Messinger, 2002), vocal cues (Bachorowski, 1999), expressive behaviour (Cacioppo & Gardner 1999), and neural activations (Barrett, 2006a; Wager, Phan, Liberzon, & Taylor, 2003) have given the viewpoints of valence and its intensity.

There is an opinion saying that valence focus is not an individual characteristic of a person that can be isolated from the psychological occurrences, thus, the focus on valence might vary among individuals (Barrett, 2006c). However, it is conceivable to point out that valence is an invariant part of emotional experience and is empirically different from social desirability (Barrett, 1996). Since valence is an essential property of emotional experience, as well as a fundamental component of emotional responding, emotional pleasantness is valence focused that is co-built by life experiences.

A theoretical framework in basic emotions such as the Circumplex Model of Affect, suggested that valence and arousal are the underlying neurophysiological systems of emotions. The interaction of these two dimensions give rise to the experience of a singular emotion (Posner, Russell, & Peterson, 2005). This model posits that emotional experiences such as happiness and unhappiness have a basis in neurophysiology, more specifically the positive or negative valence of a stimulus, respectively. Valence is also suggested as an element of emotion that assumes a hedonic tone that makes up the patterns of pleasant and unpleasant feelings.

It was recommended that prior experiences of similar sensations and interpretations of the signals in relation to the experiential context are two important factors or occurrences that affect the subjective experience of emotional pleasantness in relation to the neurophysiological signals for valence (Posner et al., 2005; Russell, 2003). In addition, the neurophysiological experience of emotional pleasantness (as determined by valence) was suggested to be a cognitive interpretation within the situational context (Russell, 2005).

## Malay Cultural Heritage Visualization

The visualization approach of cultural heritage has been recently contextualized in a humanist perspective (Windhager et al., 2019). In the Malaysian context, stimuli that evoke pleasantness such as the Malay traditional kite (*wau bulan*), dresses (*baju kurung* and *baju melayu*) and food (*ketupat*) are among the well-known Malay cultural heritage that were declared as tangible national cultural heritages (Department of National Heritage Malaysia, 2018). The *wau bulan* is a traditional kite popular in the East Coast of Malaysia which is usually flown after the rice harvest season. This traditional kite is called 'wau bulan' ('moon' kite) due to its crescent moon-like shape of its lower section. That said, the *wau bulan*, if made with the correct colour, mimics the moon in the sky when flown. The width and length of a typical *wau bulan* are 2.5 and 3.5 meters long respectively, which makes it one of the biggest kites among other Malaysian traditional kites. Adding on to its unique size and shape, the kite is usually painted with distinctive patterns with contrasting colours that makes it highly visible when being flown in the clear blue sky. Due to its appealing and captivating appearance, the *wau bulan* is adopted as one of Malaysia's national symbols. For example, the featuring of the image of *wau bulan* on the tail of the fifty-cent coin of Malaysia (1989 series) and on the logo of Malaysia Airlines (MAS) (Fadul, 2009; Frankham, 2008; Shuaib & Olalere, 2013).

The traditional Malay dresses are known as *baju kurung* (for women) and *baju melayu* (for men). The *baju kurung* is a loose-fitting comfortable wear that is usually made of *songket* or *batik* materials, which are Malay traditional fabrics. The *baju kurung* is documented as a popular Malay female dress in the late 19th century by Sultan Abu Bakar of Johor and during the Islamization of Malaysia in the 1970s and 1980s. Beside its popularity in Malaysia, it can also be found in other Southeast Asia countries like Singapore, Thailand and many regions in Indonesia. Meanwhile, the traditional attire for Malay men is the *baju melayu* which can be found in provinces with large Malay populations such as in Malaysia and many parts in Indonesia. A loose tunic that is to be paired with trousers and a complementary *sampin* (a sarong wrapped at the waist), the *baju melayu* has recently become popular not only at traditional and religious events (e.g., *Eidul fitri*, wedding, and traditional Malay martial arts called *silat*), but also in official national events. In many situations, the *baju Melayu* is worn together with *songkok* as the headdress) (Ihsan, 2009; Fuller, 2000)

Yet another Malay cultural heritage, the *ketupat*, is a famous traditional food in the Malay community. It is made from rice that is packed inside a woven palm leaf pouch before being boiled. The *ketupat* is said to be a well-known food that can be found in some Southeast Asia countries, but with different names. The woven palm leaf is removed before eating and the *ketupat* is usually eaten with *chicken* or *beef rendang*. It is believed that the use of woven young palm leaves as a pouch to cook food is popular among the population in Southeast Asia. *Ketupat* is usually served as a main dish (among other main dishes) during Islamic celebrations such as *lebaran* (Eid ul-Fitr). In fact, it is speculated that the *ketupat* began to be associated with the Islamic *lebaran* tradition in the 15<sup>th</sup> century in the Sultanate of Demak. According to the Islamic teachings, the Muslims complete the Ramadhan fast by asking to be forgiven as well as forgiving others. Therefore, the tradition on preparing and

consuming *ketupat* during *lebaran* is believed to have a significant link with the spread of Islam in Java, Indonesia as the name of the food, '*ketupat*' is believed to be originated from the word '*kupat*' which means 'admitting one's mistakes', which is in accordance with the tradition of asking for forgiveness during *lebaran* (Akbar, 2013; Heriyono, 2013).

### **Influence of Malay Culture (Ethnic Majority) in Chinese Community (Ethnic Minority)**

Psychosocial implication within ethnic minority has been reported by many studies (e.g. Kuo, 2014; Pool, Agyemang, & Smalbrugge, 2017). Associated psychological variables were observed to indicate a significant link among the issues of ethnic minority (Alogali, 2018; Arnold, Braje, Kawahara, & Shuman, 2016; Dimitrova, Johnson, & van de Vijver, 2018; Emerson, Minh & Guhn, 2018; Shi, Chen & Bouey, 2019). In Kato (2018), ethnic identity is an important perspective in understanding the culture-related psychological health.

The influence of the mixing of culture phenomenon (known as acculturation) on the dimension of emotion which focuses on the emotion of the minority group has been described and detail explained by De Leersnyder (2017). From the viewpoint of De Leersnyder (2017), this cultural phenomenon is termed as 'emotional acculturation' – the process by which the host's culture most predominant patterns of emotional experiences manage to adapt with the immigrants. Five important key points have been outlined to explain this relationship (i.e. acculturation and emotion), as indicated in Table 1 below:

**Table 1.**  
*Key Points in Emotional Acculturation*

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- The emotions of minorities change due to contact with a new/other culture
  - Engagement in a cultural context is positively linked to emotional fit with that context
  - Minorities' newly acquired and heritage culture emotional patterns tend to co-exist
  - Bicultural experience emotional patterns that fit their cultural context of interaction
  - Emotional fit with culture may be linked to greater well-being and somatic health
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In Malaysia, the sign of acculturation of the Malay culture into the life of the Chinese community can be seen in various aspects such as communication, clothing, economy, food and even hobbies (Abidin et al., 2016). For example, especially in Kelantan, some Chinese are fond of wearing *kain pelikat* (for men) or *kain sarung batik* (for women) while at home. In terms of diet or food, the strong effect of assimilation can be seen here. It is observed that the Chinese community has everyday meals comparable to the ones consumed by the Malay community such as chicken curry, *nasi dagang*, *nasi lemak*, *nasi himpit*, *ketupat*, and so on. Furthermore, some Chinese people do not practice the use of chopsticks while eating, and instead use their fingers to eat as practiced by the Malays.

Thus, from this historical account, we were interested to find out whether the Chinese, who are the ethnic minority in Malaysia, would experience the same or different levels of emotional pleasantness towards the Malay cultural heritage visualization when compared to the Malays, who are the ethnic majority in Malaysia. It is believed that the historical and cultural background of the Chinese community in Malaysia might have influenced their psychological and sociocultural development. The second endpoints, this study seeks to distinguish the item of cultural heritage (whether traditional food, traditional game or traditional dress) that were much affected by the emotion continuum of valence. The main strength in this study is that, we applied the visualization approach (described in methodology section) to evoke the experience of emotion – the approach that is widely used in emotion studies (for example, Geethanjali, Adalarasu, Hemapraba, Kumar, & Rajasekeran, 2017) which is beneficial in terms of inducing the intrinsic dimension of emotion. Other than that, this study focuses specifically on the cultural heritage of the ethnic majority and by using the indicator of emotion to explain the cultural phenomenon.

## **Materials and Methods**

### **Participants**

Participants were undergraduate students (n = 196) recruited from one local university. The mean age of the Malay respondents was  $23.0 \pm 2.75$  (n = 116) while the mean age of the Chinese respondents was  $22.18 \pm 1.99$  (n = 80). Majority of the respondents were female (81%). Participants with uncorrected vision, a history of affective disorder, and were born in a mix-marriage family (Malay and Chinese, Malay and other ethnicity, Chinese and other ethnicity) were excluded from the study.

## Procedure

The study protocol was approved by the Human Ethical Committee (Reference Number: USM/JEPeM17090391). All participants were allowed to withdraw from the study as participation was on a voluntary basis. Prior to any assessment, the study objectives were fully explained to the participants and written informed consent was provided upon agreement to participate in the study.

Data was collected cross-sectionally. Through the convenience sampling, participants were asked to rate, using the Self-Assessment Manikin (SAM) (Bradley & Lang, 1994), three pictures of Malay cultural heritage from three different categories as displayed in Figure 1, 2 and 3 below. All pictures are uncopyrighted images.



*Figure 1. Malay traditional game - wau bulan*



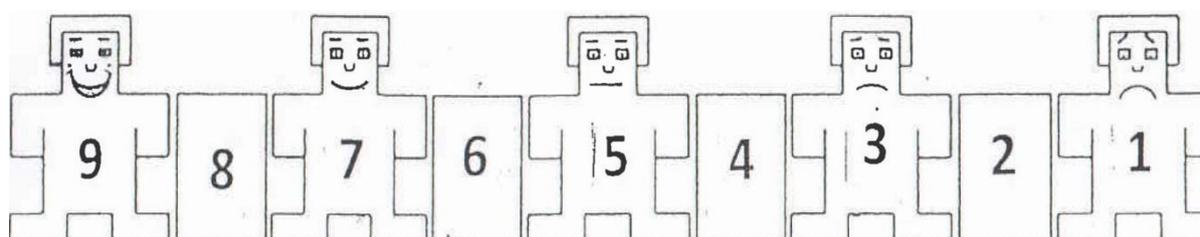
*Figure 2. Malay traditional dresses – baju melayu (men) and baju kurung (women)*



**Figure 3.** Malay traditional food - ketupat

The *wau bulan*, *baju melayu/baju kurung*, and *ketupat* are among the well-known Malay traditional items that have been declared as the tangible cultural heritage of Malaysia by the Department of National Heritage Malaysia (2018). The brightness and size of the pictures were adjusted and standardized. The content validity of the images as cultural heritage of Malay was confirmed by two academician and one cultural officer who were expert in Malay tradition. They were asked to view and rate the relevance of the presented images as a Malay cultural heritage based on 4-point scale (Davis, 1992) as follows – 1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, and 4 = highly relevant. Content Validity Index (CVI) was used to determine the content validity of the images. All images indicated the content validity index for items (I-CVI) of one - the required value for content validity. None of images indicated the value of less than one.

The Self-Assessment Manikin (SAM) is a standardized non-verbal pictorial assessment that measures the emotional domains of valence, arousal, and dominance (Bradley & Lang, 1994). It has been used widely as a cost- and time-effective measure of emotion (Bynion & Feldner, 2017; Geethanjali et al., 2017). The state of valence or pleasure - the domain of emotion that is being focused on in this study - refers to the intrinsic attractiveness (positive valence) or aversiveness (negative valence) of an event, object, or situation, as measured by a single-item scale ranging from high pleasantness/highly happy (score of 9) to minimal pleasantness/highly unhappy (score of 1) (Bradley & Lang, 1994) (Figure 4).



**Figure 4.** Emotional continuum of Self-assessment Manikin (SAM) – 1 (unpleasantness/unhappy) to 9 (pleasantness/happy)

## Statistical Analysis

Data was analysed with the Statistical Package for the Social Sciences (SPSS) Version 23. The analysis of variance (ANOVA) for a two-way mixed design was employed to determine the effect of ethnicity (two levels of between-subjects effect: Malay and Chinese) on the emotional pleasantness evoked by different types of Malay cultural heritage images (three levels of the within-subject effect: Malay traditional game, Malay traditional dress, and Malay traditional food), focusing on the domain of valence. Assumption of sphericity was checked and the degree of freedom of the F ratio was corrected (if any) according to the Huynh-Feldt method.

## Results

The internal consistency of presented pictures as rated by 196 participants was deemed acceptable with a Cronbach's alpha value of 0.7. A two-way mixed ANOVA showed a main effect of Malay cultural heritage images on emotional expression,  $F(2, 193) = 25.30, p < 0.001$  (Table 1). The pairwise comparison of Bonferroni method consistently indicating the domination of *ketupat palas* on *Malay dresses* and *wau bulan*. All participants (Chinese and Malay) indicated significant higher emotional expression towards the image of *ketupat palas* ( $M = 6.79, SE = 0.15$ ) compared to the image of *Malay costume* ( $M = 5.44, SE = 0.15$ ) [Mean difference = 1.35,  $SE = 0.19, p < 0.001$ ]. Again, all participants (Chinese and Malay) indicated significant higher emotional expression towards the image of *ketupat palas* ( $M = 6.79, SE = 0.15$ ) than *wau bulan* ( $M = 5.77, SE = 0.13$ ) [Mean difference = 1.02,  $SE = 0.19, p < 0.001$ ]. However, no significant difference was observed between *Malay costume* and *wau bulan* [Mean difference = 0.33,  $SE = 0.77, p > 0.05$ ].

Nonetheless, the interaction effect of ethnicity (Chinese and Malay) and the emotional response towards Malay cultural heritage images was not observed [ $F(2, 193) = 0.28, p > 0.05$ ]. Similarly, the between subject effects (the effect of ethnicity on emotional response as a whole, regardless of the types of image) was not observed [ $F(1, 194) = 0.09, p > 0.05$ ] (Table 2)

**Table 2.**  
*Emotional Expression of Chinese and Malay Towards the Malay Cultural Heritage Visualization*

Ethnicity	Mean (Standard Deviation)			Degree of Freedom		
	<i>Ketupat</i>	<i>Malay Dresses</i>	<i>Wau Bulan</i>	Main Effect	Interaction Effect	Between-subjects Effect
Chinese	6.68±2.04	5.64±1.87	5.59±1.72	25.30*	2.82	0.09
Malay	6.90 ±2.01	5.23 ±2.20	5.95±1.88			

\*significant level:  $p < 0.001$

## Discussion

The current study aimed to observe the effect of the emotional expression of the ethnic minority of Chinese (in comparison to the ethnic majority of Malay) towards the cultural heritage images of Malay. Two main findings should be highlighted in this study. First, Chinese and Malay indicated similar emotional expression while responding to the Malay cultural heritage images. Second, the emotional expression of the Chinese and Malay were significantly affected by the types of images - food image (i.e. *ketupat palas*) was significantly rated higher than non-food image (i.e. *Malay dresses* and *wau bulan*).

### Similarity of the Emotional Reaction in Chinese (Ethnic Minority) and Malay (Ethnic Majority)

This first finding has important interpretation. The similarity of the emotional reaction between Chinese and Malay could be possibly explained by the factor of acculturation. Redfield, Linton, and Herskovits (1936, p.146) said that acculturation is a "the process of cultural change that occurs when individuals from different cultural backgrounds come into prolonged, continuous, first hand contact with each other". Sociologist describes acculturation as a process of change in beliefs or traditional practices that occurs when the cultural system of one group displaces that of another as a result of meeting between cultures (Sam & Berry, 2010). This means that, Chinese community (as an ethnic minority) has been accepting, adapting and adopting the culture of the Malay (as an ethnic majority) in their life as Malaysian – a process that begun hundreds of years ago, known as acculturation. This process of acculturation has great impact on their psychological and socio-cultural development. However, Chinese community who get accustomed to the culture of Malay still retain certain features from their own culture, such as language, customs, and food, while adapting to the majority culture. This important characteristic of acculturation process has been pointed out by sociologist (Sam & Berry, 2010).

Thukiman and Rahman (2009) pointed out that the acceptance of the major ethnic groups towards the adoption of their cultures by minority ethnic groups is important in acculturation. Moreover, Kang (2001), in his report on the cultural phenomenon in Malaysia, pointed out that acculturation plays a role in minimizing the racial gap that could bring upon difficulties and drawbacks in ensuring good communication and relationships between members of different cultures in the community. As a result, the culture of the majority influences many life aspects of the minority group, which in turn leads the minority group to adopt parts of the majority culture as their own. Acculturation happens gradually, and it involves the process of combination and evolution, which eventually brings changes to the life patterns of the minority community as a whole.

Other factors such as political reason could be a possible element as well, that shaped the pattern of psychosocial among Chinese (Lee & Thock, 2014). This argument possibly links to the changing pattern in ethnic diversity in Peninsular Malaysia that was seen several decades ago (Evers, 2014). This changing pattern is postulated to have a great impact on social and psychological of the multi ethnic population in Malaysia through the urban planning and government policy (Evers, 2014). Meanwhile, from the lenses of the educationist, the psychosocial development of one's ethnic group is greatly influenced by the educational system that characterizing one's identity (Ting, 2013).

The theoretical model by Kitayama and Uskul (2011) and Kitayama and Tompson (2010) that comprises seven steps of the interaction between neuroscience and culture, has given much implication in the interpretation of the first finding of this study, as outlined in Table 3. Repeated exposure or engagement of Chinese community in the cultural environment of the ethnic majority (i.e. Malay) (Phase 3), has led to the formation of culturally patterned of neural activities that could be reflected by their emotional reaction (Phase 4). Individuals engaging in the same cultural environment, after certain a period, they tend to share the same patterns of emotions. This is in line with the theory of mind inferring that one's emotional experience could be predicted or experienced indirectly by other people as well as theories surrounding the capability of human psycho-biological to understand other's mind such as their beliefs, desires or intentions (Frith & Frith, 1999; Leslie, 2001). Therefore, it can be understood in the way that, after many generations, Chinese people hold a widespread of mental states attribution (intentions, expectations, desires and beliefs) to understand others (the ethnic majority of Malay) in the same cultural environment. This complex mentalizing of the ethnic minority provides them with the ability to interpret, explain and predict the pattern of behaviour as based on another group of ethnicities. It is found that these complex representations of the mental states of others is implicated in the activation of several cortical areas such as the dorsomedial prefrontal cortex (dmPFC), ventromedial prefrontal cortex (vmPFC), temporo-parietal junction (TPJ), posterior cingulate cortex (pCC) and anterior temporal lobe (aTL) (Saxe, 2006). Referring to phase 7, it can be interpreted that, after thousands of years, from generation to the next, the Chinese community developed the strong basis of emotional reaction as a consequence of their biological adaptation towards the Malay community (Phase 7).

**Table 3.**  
*Neuro-culture Interaction Model Implicated in Malaysian Chinese Community*

Phase	Interaction Components
1	Macro level – ecological and societal factors (e.g. climate, social mobility)
2	Cultural values and tasks (practices designed to achieve the cultural values)
3	Repeated engagement in a select set of cultural tasks
4	Long term potentiation – formation of culturally patterned neural activities
5	Spontaneous enactment of culturally scripted behaviours when such behaviours are called for
6	Establishing one's identity and reputation in local community
7	Biological adaptation as assessed by reproductive success

On top of that, other factors in ethnic issues such as integration, interaction, interethnic attitudes and perceptions as well as ethnic identity should be considered (Shamsul, 1996; Yeoh, 2006) as it is said that emotional experience can be informed by a complex culture system, which is also related to one's actions, beliefs, and values (Abramitzky, Boustan & Erikson, 2014; Rich, 2005). Moreover, it was suggested that the emotional expression is prewired in the human brain through experience, and people further display such emotions according to culture-specific rules (Burgoon, Buller & Woodall, 1996).

### **Emotion Reaction Affected by the Types of Cultural Image**

In the second finding of the study, Chinese and Malay responded to the *ketupat palas* with higher emotional expression, than other cultural images – *Malay dresses* and *wau bulan*. This finding indicated the domination of food image than non-food image in the visualization approach undertaken in this study. It is to note that, perhaps, food item has much impact in the issue of cultural heritage, as compared to other non-food items such as dress and game. The acceptance of Malay food as cultural heritages by the Chinese reflects Chinese people's adaptation to ecology, social environment and market economy which are the acculturation of historical heritage and experiences of the whole society in Malaysia (David & Chee-Beng, 2001). It is also to note that, the effect of cultural mixing is strong when it comes to food or diet. It is observed that the Chinese community has everyday meals comparable to the ones consumed by the Malay community such as chicken curry, *nasi dagang*, *nasi lemak*, *nasi himpit*, *ketupat*, and so on. Furthermore, some Chinese people do not practice the use of chopsticks

while eating, and instead use their fingers to eat as practiced by the Malays (Abidin et al., 2016). As based on Abidin's finding, perhaps, it explains the similarity pattern of the emotional expression of the Chinese and Malay that we observed in our finding. In addition to this, the sign of 'cultural-mixing' of the Malay culture into the life of the Chinese community is displayed in numerous aspects, not only in the preparation and consumption of food, but other aspects of social behavioural as well such as in hobbies, communication, dressing and economy-related activities (Abidin et al., 2016). This finding could also be explained and justified from the fact that food is a globalization issue especially among minority group (Margue et al., 2018; Halawa, 2018). Although context is different, Halawa (2017) has forwarded the evidence that point to the association between the biological factor of ethnicity and dietary psycho-behaviour.

Therefore, we suggest that the emotional reaction of the ethnic minority (i.e. the Chinese participants) towards the cultural heritage of the ethnic majority (i.e. Malay) evolves throughout the acculturation process that began thousand years ago. Detail analysis indicated that the food image is dominant than non-food image in evoking emotion. However, the visualization approach in this study could bias from the way individual perceive the object while looking at the picture. According to the Gestalt theory, the perception towards picture could be biased from six principles – similarity, continuation, closure, proximity, figure/ground and symmetry/order (Koffka, 1935). In other words, individual response (perception) towards image is shaped by factor such as the design of the image - type of colour, brightness, object position as well as the number of objects in image. In addition, the range age of the participants should be expanded because it contributes to the process of emotion (e.g. Aqil, Hisham, Thaaer, & Ali, 2011). Future research is suggested to delve further the cultural heritage issue from the cultural-neuroscience framework which explore the neural mechanism of emotion in relation to different types of cultural heritage images.

## Conclusion

Acculturation or generally known as 'cultural mixing' may contribute to the emotional development of the Chinese community in Malaysia that is reflected in their emotional response pattern towards the cultural heritage of the majority ethnic (i.e. Malay). Across the psychosocial development in the midst of the culture of ethnic majority, the emotional dimension of the Chinese evolves throughout the acculturation process that began thousand years ago and is still ongoing until today. Among the cultural heritage items, food is suggested as a dominant item that carries emotional property that is potentially implicated in the complex emotional process at the neural level.

## Declaration of Conflict of Interest

The authors of this manuscript declare that they have no conflict of interest concerning its drafting, publication, or application.

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