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When Chinese cuisine meets western wine

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Abstract

This study explores the guiding principle for pairing common western table wines such as Chardonnay, Riesling, Merlot and Cabernet Sauvignon with authentic Chinese cuisines. Sensory evaluation was carried out to measure the affective level on the pairing of food and wine. A five by eight (4 different wines and no wine pairing with 8 different cuisines) factorial experiment design was carried out to attain the sensory affection from the taste panel. Hedonic rating was adopted to assess the affective response of the cuisine and wine pairings. The results of affective test indicated that Riesling was the preferred wine to pair with most of the Chinese cuisines in question. The interaction was significant between different cuisines and wines ($p = 0.000$), indicating that the hedonic sensory pattern of the cuisine can be influenced by the type of wine paired. In addition, Multidimensional Scaling (MDS) graph was proven to be an effective tool for visualizing the guiding principle of food and wine pairing.

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Keywords: Sensory evaluation; Chinese cuisine; Wine pairing map; MDS graph

Introduction

According to the statistics of per capita wine consumption, French people consumed 43 liters of wine per capita; each American drank 11 liters of wine; whereas the Chinese only consumed 1.3 liters per capita in 2013 (Wine Institute, 2015). Camillo (2012) stated that although the demand of wine decreased in Europe, the demand continued to grow in Asia. China, in particular, had the sales growth of wine for more than 30% within the 10 years period since 2001. Due to this high demand, the number of wine importers soared 73% in 2012 (Mercer, 2012). In addition, wine pairing with meal became trendy in China and the major revenue was contributed from Chinese young customers.

An experienced sommelier can easily recommend a good pairing wine to western cuisine. However, there seems to be no certain guidelines for pairing wines with Chinese cuisines. The connection between the diverse flavors of Chinese cuisines and western wines is a missing piece in the puzzle of the knowledge for the sommelier. Exploration on sensory perception on the pairing between Chinese cuisines and western wines will provide a whole new dining experience and business opportunities. Dodd (1996) found that placing wine on the food menu will have a significant impact on the sales of wine, which greatly facilitated the revenue of a restaurant. The sales of wine in a modern Chinese restaurant could easily account for 30–40% of the revenue. It becomes increasingly important for the practitioners in the hospitality industry to have the knowledge in order to lead their customers for different dining pleasure. In order to extend the fun of mix and match in dining, the art of pairing western wine with food will have to be extended from the western cuisines to different types of Chinese cuisines.

Wine was found to be strongly associated with food in three dimensions: complementary, social meanings, and lubrication effect (Pittigrew and Charters, 2006). Lubrication effect refers to the social interaction enhancement in a gathering influenced by the relaxation from the alcohol and the pleasant taste of wine. A good pairing is based on the complementary role of wine on the three important factors of food: components, texture, and flavors. The operational definition for the role of

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wine was the complementary effect on the flavor of a cuisine in this study. Though there were a few articles attempted to discuss the concept of pairing some Chinese foods with wines, qualitative and empirical studies are still in need to establish the appropriate matching between western wine and regional Chinese cuisines. In order to introduce Chinese cuisines pairing with wine in a more systematic manner, a model integrated categorization, consumer affective test, and summarized by the visual mapping was established to explore the pairing rules in this study.

The objectives of this study were to:

1. Identify the best pairing between four popular wines with selected authentic Chinese cuisines
2. Establish a graphical method to elucidate the relationship between cuisine and wine
3. Explore the potential of pairing wine with Chinese cuisine for younger diners

Chinese cuisine

With the growing popularity and consumption of Chinese cuisines, various cuisines have been introduced to consumers across the world both in casual fast food restaurants as well as in fine dining restaurants. Regardless of the level of service, the regional cuisines can be defined by their cooking styles, ingredients, and tastes (Newman, 2004). Rozin (1982) categorized the authentic regional cuisines based on their primary ingredients, cooking techniques, and unique flavoring principles. It is generally recognized that Chinese cuisine is a combination of soy sauce, salt, sugar, chili sauce, garlic, green onion, and rice wine. However, with the addition of local produce, the combination of different ingredients and the cooking skills gave the regional cuisine its unique taste. For example, if a fish steamed with ginger, green onion, salt, rice wine and with local vinegar sauce, it will be a Zhejiang

(Eastern) style "West Lake Fish in Vinegar Gravy". If this fish was deep fried, then sautéed with vinegar, rock sugar and soy sauce, it became the Cantonese style "Sweet and Sour Fish".

There are eight popular categories of cuisines corresponding to different regions in China; these eight regions from the west inland to the northern region are: 1. Szechuan, 2. Hunan, 3. Fujian, 4. Cantonese, 5. Zhejiang, 6. Jiangsu, 7. Anhui, and 8. Shandong (Anderson, 1988; Newman, 2004) as shown in Fig. 1.

In general, despite the central region, Chinese regional cuisines traditionally belong to four destinations. Inevitably, the characteristics of the typical dishes of each region in Table 1 were distinctly different due to the geological barrier. With the improvement of transportation, the eight categories of cuisine merged into four general regions. The northern region such as Beijing was known for the dishes made by braising, baking, and stewing (Newman, 2004). People from the north often have strong preference of pairing grain-made distilled liquor with their food. The cuisines from the other three regions in Table 1 all have potential to be paired with wine since the trend has been observed in various restaurants. For instance, roast goose and salted goose wing are the popular dishes in southern China. The marinated sauce for the goose contains light-color soy sauce and rock sugar that can eliminate the game odor and consequently promote the savory taste of the goose.

Eastern Chinese cuisines are often cooked with brown rock sugar and a special black vinegar to form a sweet, decent sour and savory taste (Newman, 2004; Kittler and Sucher, 2008). Chefs from Jiangsu or Zhejiang use freshwater fishes or shrimps with light seasoning, or seasoning with locally grown tea. It is characteristic to eastern cuisines that the fresh and original taste of the food is highlighted rather than being overwhelmed by strong flavorings.

Contrarily, a lot of spices were often applied in western cuisine to add the strong flavor in their food and also to get rid of the so-called "humidity" in their body. Cooking with red hot
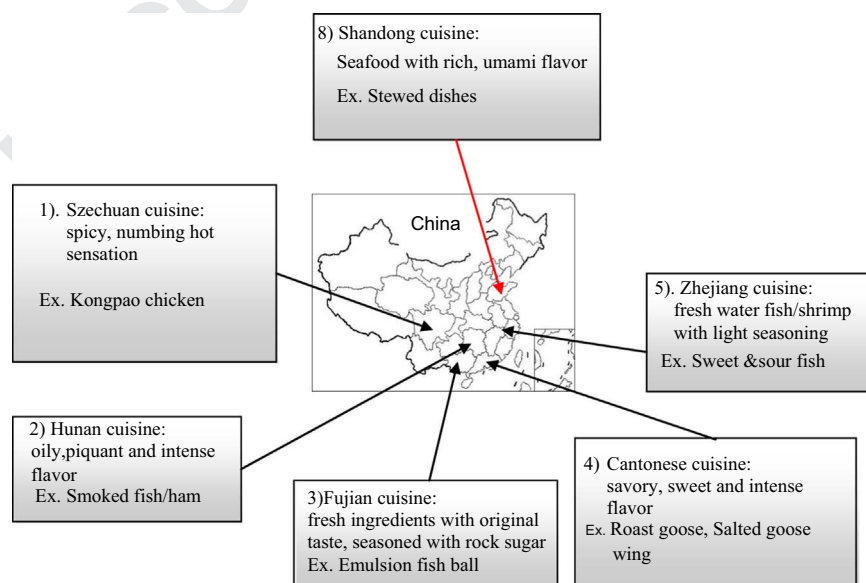

8) Shandong cuisine:
   Seafood with rich, umami flavor
   Ex. Stewed dishes

1). Szechuan cuisine:
   spicy, numbing hot sensation
   Ex. Kongpao chicken

China

2) Hunan cuisine:
   oily, piquant and intense flavor
   Ex. Smoked fish/ham

3) Fujian cuisine:
   fresh ingredients with original taste, seasoned with rock sugar
   Ex. Emulsion fish ball

4) Cantonese cuisine:
   savory, sweet and intense flavor
   Ex. Roast goose, Salted goose wing

5). Zhejiang cuisine:
   fresh water fish/shrimp with light seasoning
   Ex. Sweet &sour fish

Fig. 1. Origins and the characteristics of the regional cuisines.