



# Cross-Cultural Studies in Wine Appreciation **68**

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## Abstract

The present chapter outlines and discusses published research concerning how people from different cultures or geographical regions vary in terms of their discrimination and appreciation of wine. We begin by providing a brief historical perspective and then discuss cross-cultural studies concerning sensory, cognitive, and emotional responses to wine. In doing so, we report both similarities and

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differences as a function of culture. We also highlight the varying methodologies employed to investigate aspects of wine appreciation from a cross-cultural perspective, identifying difficulties specific to this area of research including those subsumed within the phrase “lost in translation,” and those pertaining to validity of definitions of culture in light of increasing globalization. Finally, we discuss how a cross-cultural approach can help advance our understanding of wine appreciation, providing useful information for wine industry marketing strategists as well as for those interested in the science and practice of wine tasting.

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## Introduction

Recent decades have seen cross-cultural studies become a common feature in the major chemosensory and food science journals (e.g., Chrea et al. 2005; Kim et al. 2013, 2018; Wan et al. 2015a). These studies, many focusing on differences between what broadly might be called Asian consumers and non-Asian or “Western” consumers, alert us to the importance of our experiential histories in influencing how each of us appreciates food and beverages. Although genetic differences cannot be discounted (e.g., Keskitalo et al. 2007), Prescott (2012, p. 144) argues that overall there is little evidence that cultures differ innately in terms of perception of food qualities and basic tastes (sweetness, sourness, saltiness, bitterness, and umami). On the other hand, the culture into which we are born and within which we are socialized is now widely accepted as playing a significant role in how we respond analytically and hedonically (e.g., in terms of liking) to the incoming information from our senses (Prescott 2015).

Precisely how do our experiential histories influence how we respond to food and beverages? Despite a proliferation of research over the last two decades hypothesizing and investigating probable differences in a range of sensory phenomena as a function of culture (e.g., Lee and Lopetcharat 2017; Pangborn et al. 1988), a handful of studies only has delved into the theoretical basis of such differences. The present chapter focuses on cross-cultural research that has drawn on established theory, often from the disciplines of cognitive and/or social psychology, in an attempt at elucidating the ways in which culture or geographical location can influence our appreciation of a specific food product, namely the complex beverage known as wine. We have not attempted to disentangle genetic influence from experiential influence but considered the published research explicitly aimed at investigating wine appreciation as a function of differing cultural socializations.

## Defining Culture

For the purposes of this chapter, cross-cultural is defined as pertaining to, or contrasting, two or more cultures or cultural groups. In terms of defining culture itself, most published research investigating consumer preference and sensory analysis as a function of culture appears to define culture, either implicitly or explicitly, in terms of geographic location or origin of the participants

(e.g., Saenz-Navajas et al. 2013; Wan et al. 2015a). We acknowledge that in the discipline of Psychology, where culture became an active area of research after the Second World War, recent definitions of culture are more elaborate and include notions of “systems of thought” or “world views” (Imai et al. 2016), with perception, thinking, and language inherently linked to culture. Further, some recent approaches to defining culture such as culture-as-situated cognition theory (Oyserman 2016) argue for a need to move beyond conceptualizing culture as race, ethnicity, or geographical location and to see culture as less static than geographical location implies. Although detailed discussion of current definitions of culture is outside the scope of this chapter, where relevant we draw on recent theoretical argument to help interpret research outcomes. Most importantly, we acknowledge that even if the original source of cultural differences was geographical location, culture is a dynamic concept and open to influence from increasing globalization. Ease of travel, increasing trade across countries, and factors such as health concerns are just some of the variables likely to interact with mere exposure to a product to influence contemporary behavior in relation to wine appreciation and consumption.

## **Wine Appreciation Research: Methodologies and Theory**

Published cross-cultural research specific to investigating wine appreciation, despite being relatively sparse until recently, has involved a range of sensory phenomena and methodologies. In terms of phenomena, studies investigating intrinsic aspects of wine (e.g., Saenz-Navajas et al. 2013; Parr et al. 2015; Valentin et al. 2016) frequently report comparisons between cultures with established wine industries, these often dichotomized as Old World cultures (e.g., France, Spain) and New World cultures (e.g., New Zealand, Australia, South America, South Africa, the USA). On the other hand, investigation of extrinsic aspects of wine such as price, serving glassware, brand reputation, purchase intent, or perceived health benefits frequently has involved comparing responses of Asian consumers with those of Western consumers (e.g., Do et al. 2009; Yoo et al. 2013; Wan et al. 2015b). In terms of methodology and theory, the majority of published studies are of descriptive nature only, limiting theoretical development in the field. There is however a handful of studies reported, notably cerebral representation studies, that draw on established theory from the discipline of Psychology to assist with data interpretation. For the more theoretically oriented researchers, the overarching and fundamental question of interest in cross-cultural research has its basis in psychological science; more specifically, it concerns the degree to which our cognitive processes of perception, conceptualization, and communication about wine, and the associated emotional responses, are culture dependent, and how such culture dependency occurs. This chapter aims to focus on published research that helps us shed light on sources of cross-cultural differences in wine appreciation, including the frequently implicated concept of familiarity. We attempt to delineate how familiarity and availability, in giving rise to cultural expectations, internalized values, memories, and emotional

associations, influence our sensory experiences, our purchase choices, and the way we verbalize our wine experiences.

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## Historical Perspective: Wine and Culture

Wine, an alcoholic drink made from fermented grapes, is of much more consequence culturally than this short definition implies. The grapevine is reported as our oldest cultivated plant (Fehér et al. 2007), and wine has passed through the centuries accompanying memorable moments in world history. No other alcoholic beverage has been as well documented and so widely steeped in culture, this evidenced by its presence in documents from different periods and societies.

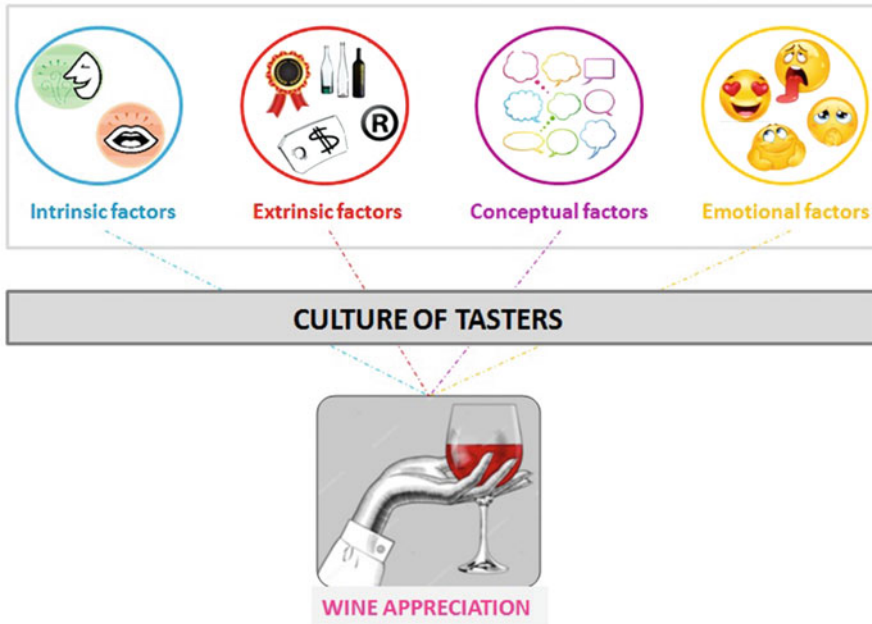
Records of wine's cultural importance go a long way back. For example, early references are found in Greece to Dionysus, the God of wine, during the Mycenaean Period. Wine has had a long relationship with religion, its leading role in Christian religious belief exemplified in that the first miracle performed by Jesus Christ is recorded as "the miracle of the transformation of water into wine" or "the miracle of the Wedding at Cana" (Van der Loos 1965). Wine has as well a long history of being associated with feelings such as love. According to Grube (1935), an association between wine and love can be found in writings of the ancient Greeks such as those of Euripedes: "Where there is no wine, there is no love." Grapes and wine have also been instrumental in perpetuating and maintaining identities of cultural groups who move around the world. It is reported that from the sixteenth century, during the period of great navigations, Spanish, Portuguese, and Azorean and later, in the nineteenth century, during the immigration of Italians and Germans in the Americas, these peoples cultivated the grape as a way of maintaining their old traditions and cultural habits (e.g., Carré 1987). In this way, the British, for example, although not wine producers, were able to incorporate wine in their meals and traditions and to further spread grape culture across the burgeoning British Empire. Thus, wine and culture are historically entwined with deducible effects present today.

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## Wine Appreciation: Empirical Investigations

Many factors influence how food and beverages are evaluated including their perceived safety, sensory characteristics, acceptability, and liking, and wine is no exception. These factors can be classified as intrinsic or extrinsic (Parr et al. 2011; Rodrigues and Parr 2019). Figure 1 demonstrates a classification of factors implicated in wine appreciation.

Intrinsic factors are those pertaining to the wine itself and experienced by tasting and/or drinking the wine (e.g., color, perceived flavors). Extrinsic factors are defined as those quality cues related to the wine but not physically part of it and include characteristics such as brand name, price, bottle shape and weight, label, awards, wine origin, technical methods of production, and so forth (Prescott 2015; Wan et al. 2015b).



**Fig. 1** Classification of empirical research in wine appreciation

In recent years, cross-cultural research investigating conceptual (i.e., thinking) aspects of wine appreciation has broadened the extrinsic topics investigated, with the impact of several sociopolitical movements (e.g., organic and biodynamic methods of production, animal welfare, perceived health benefits or risks, concerns about obesity) coming under scrutiny. These social movements are complex, frequently crossing geographical boundaries and potentially having closer associations with sociodemographic status of participants than with their geographical location given our increasingly globalized world (Abraben et al. 2017; Hidalgo-Baz et al. 2017).

### **Intrinsic Wine Qualities**

Research in this area can be divided into studies primarily investigating hedonics (liking, preference) and those with their major focus on perceived aroma, taste, and in-mouth sensations, along with global aspects of wine appreciation such as perceived quality and perceived complexity. In terms of a theoretical base, research on visual perception has demonstrated cultural influence in terms of what information people pay attention to as well as in terms of cognitive style such as a preference for holistic over analytical processing of a stimulus (Kastanakis and Voyer 2014). It is conceivable that such cultural differences in visual attentional processing apply as well to processing of chemosensory stimuli, potentially influencing olfaction (smell, aroma) and taste.

## Hedonic Judgments

The notion that familiarity or mere exposure to an item can influence our preferences has a long history in Psychology (Maslow 1937). Several studies investigating cross-cultural liking and preference for wines have been reported, with assumed participant differences in wine familiarity or exposure as a function of geographical location either explicitly or implicitly implicated in the purpose behind the study. Below we exemplify the type of research and outcomes reported in this area.

Preferences of American and Italian consumers for several varieties of Californian and Italian red wine (Merlot, Syrah, Refosco, and Zinfandel/Primitivo) were investigated by Torri et al. (2012). Results showed that overall the Californian wines were preferred by both Italian and American tasters. In other words, there was no consistent support for the notion of familiarity as a major influence on preference judgements for the red wines employed in this study as demonstrated by the Italian participants' responses.

Williamson et al. (2012) also investigated red wine liking, in this case contrasting responses of Australian and Chinese red-wine consumers. Wines from Australia, Argentina, France, the USA, and China and of several red wine varieties were assessed for liking and purchase intention by Chinese consumers in three Chinese metropolitan areas. Liking results showed the Chinese wine to be poorly rated, with Chinese consumers giving highest liking scores to the Australian wines. The data were compared with those of 216 Australian consumers who also rated a set of red wines, 12 of which were similar to the wines rated by the Chinese. The Australian consumers' liking scores were similar to those of the Chinese consumers with a preference for Australian wines over those from other countries, suggesting that wine familiarity may be implicated in the Australians' liking judgments, and possibly those of the Chinese consumers depending on wine availability in the Chinese market place. This study also reported an interesting result concerning purchase-intention behavior. Results showed that Chinese consumers were driven primarily by price and country of origin, with wines from France and of varietal Cabernet Sauvignon reported as the most likely to be purchased. Hence, in terms of wine origin, what the Chinese consumers liked (Australian wines) and what they reported an intention to buy (French wines) were two different things. Finally, a methodological issue worth noting was reported; Chinese consumers tended to use a more narrow range of scores when rating liking than Australian participants used, the former's responses skewed towards the "like" end of the scale. The authors interpreted this in terms of a socio-cognitive effect, specifically in terms of the desire of Chinese consumers not to give a negative response. Interestingly, when the liking scores for both Australian and Chinese consumers were included in analysis involving trained-panel descriptive ratings to the 12 wines common to both groups, "sweetness" and "red fruit flavor" were the most important attributes driving liking scores for both cultures, while bitterness and sourness were associated with disliking. In short, despite some cultural differences being evidenced, this study reports more similarities than differences among Chinese and Australian wine consumers in hedonic ratings to red wines common to both the Chinese and

Australian wine markets, implicating familiarity as a possible factor driving wine liking. Clearly, a difficulty with this type of study is that for familiarity to be implicated as a source of outcomes, a measure of familiarity in terms of how often each participant consumed or was exposed to any particular wine type is essential. That is, merely being of a particular culture or ethnicity does not in itself guarantee that one consumes the produce of one's own geographical location.

In one of the few cross-cultural studies to investigate both liking and familiarity of the same wines, Parr et al. (2015) asked French and New Zealand (NZ) participants to judge both French and NZ Sauvignon blanc wines. Cross-cultural differences in liking for the wines were minimal but were more apparent in an olfaction (nose only) condition than in a full tasting condition. In terms of direct ratings of wine familiarity, a cross-cultural effect was demonstrated with an interaction between participant culture and wine origin showing NZ participants to be more familiar with the French wines than French participants were familiar with NZ wines. This demonstrates a dissociation between wine liking (more cultural similarities than differences) and wine familiarity (cultural differences). As well, despite not being familiar with NZ wines, French participants on average liked these wines more than the French wines in the study, conceivably a result of novelty, and leaving a rather murky picture of the influence of familiarity per se.

Finally in this section, a recent study reported by Ristic et al. (2019) describes a cross-cultural study (Australia, the UK, the USA) investigating consumers' liking of selected wine aromas using online survey methodology. Although some between-country differences in hedonic responses to the 59 selected wine aromas were demonstrated (e.g., "green" characters in a wine were more acceptable to the UK respondents than to those from the USA), there were many similarities across countries in terms of the aromas reported as most liked (e.g., honey) and those least liked (e.g., smoked meat). Interestingly, several demographic factors (age, gender, consumption frequency) influenced reported liking of the aromas, having greater effects than geographic location of participants, perhaps due to increasing globalization and ease of communication among English-speaking countries.

### **Analytical Studies: Sensory Characterization of Wines**

Several cross-cultural studies have considered how differing experiential histories could influence analytical, sensory responding to wine. Culture, in conditioning how we perceive and think about a product such as wine, could be an important source of behavioral differences (i.e., of between-participant differences in responses to wine).

In an investigation into one of wine's more abstract attributes, namely intrinsic quality, Saenz-Navajas et al. (2013) compared French and Spanish wine consumers with two levels of expertise, consumers and experts. Interestingly, results demonstrated expertise rather than culture as the major driver of quality judgments of French and Spanish red wines. Another study investigating perceived quality of Pinot noir wines produced a similar result, demonstrating that participant culture was not a major driver of differences in wine perceived quality (Valentin et al. 2016). The data, showing more cultural similarities than cultural differences, were interpreted by the authors as suggesting that the wine professionals, irrespective of

their geographical location (Burgundy, France vs. Marlborough, NZ), had a shared cognitive construct regarding the important sensory qualities of Pinot noir wines. In other words, the wine expertise of the tasters resulted in them having a shared conceptualization of the wines that overrode any geographically based, cultural differences that could have been expected from the participants due to France and NZ having very different wine-production histories (Mouret et al. 2013).

In contrast to the findings with wine consumers and wine professionals reported above, Saenz-Navajas et al. (2013) reported data from trained panelists where cross-cultural differences in wine appreciation were more pronounced. Spanish and French trained panelists characterized the same 12 Spanish and French red wines that had been evaluated for quality by consumers and experts, on odor only and then on in-mouth properties (e.g., tastes, textural aspects, tactile qualities). There was reasonable agreement across cultures for wine-odor description, but differences in perceived wine balance and sourness were observed in the in-mouth response data, as well as different linguistic terms employed for describing the wines' characteristics. The authors attributed these latter effects to different cultural histories, in particular with respect to the fruits readily available in each of Spain and France.

Color is an intrinsic quality of a wine in that it is part of the beverage itself. In an insightful article, Shankar et al. (2010) considered the notion that the well-established influence of color on judgments of flavor may in turn be influenced by cross-cultural differences based in prior learning and experience. British and Taiwanese participants were compared in a colored-beverage, flavor-judgment task. Data showed that some colors produced cross-cultural, color-flavor effects while other colors did not. In terms of wine, color-flavor influence has been demonstrated in both French oenology students (Morrot et al. 2001) and in NZ wine professionals (Parr et al. 2003), the similar outcomes occurring despite very different study methodologies. In the Pinot noir study of Valentin et al. (2016) reported above, the importance of color as a driver of perceived wine quality judgments was in fact the major focus. Again, there were more cross-cultural similarities than differences among the French and NZ wine expert participants when assessing the importance of color to judgments of perceived quality of French and NZ Pinot noir wine. These study outcomes suggest that domain-specific expertise in the field of wine can override culture-specific differences associated with beverage color.

## **Extrinsic Wine Qualities**

Over recent decades, several studies have demonstrated that extrinsic aspects of foods and beverages can influence what we perceive, what we prefer, and eventually our behavior (e.g., what we choose or purchase). Yoo et al. (2013), for example, reported a marketing study comparing online questionnaire responses of Korean and Australian wine consumers to questions about wine preferences and consumption behavior. The study's major focus was perceived health benefits of wine, but several other extrinsic factors were investigated including wine price, bottle shape, and wine type (red, white, rosé, sparkling, fortified). Results demonstrated several cross-



cultural effects, including: (i) a stronger preference for red wine over white by Korean than Australian consumers; (ii) Australians reported taste/flavor as a more important factor when choosing wine than Koreans did; and (iii) perceived health benefits were a more important factor for Koreans than Australians when choosing wine. Preferred wine price was similar across cultures, and bottle shape was not a particularly important factor by either culture. Overall, these data demonstrate that sociocultural influences impact, via top-down cognitive processing, wine purchase and consumption behavior.

Wan and colleagues (Wan et al. 2015a, b) report several cross-cultural studies where influence of type of serving glassware and participant culture on consumers' expectations pertaining to color-flavor associations was investigated. Chinese (Study 1) and American (Study 2) participants rated liking, familiarity, and drink-glass congruency from photographs online of alcoholic drinks (beer, whisky, red wine, white wine, Baijiu) presented in six different glass types (Wan et al. 2015b) as well as their willingness to pay for each drink in terms of amount of money (Chinese Yuan or \$US). Interestingly, there was significant cross-cultural agreement between the American and Chinese participants with both groups considering some glassware more appropriate than others for serving wines and liking was associated with drink-glass congruency for both cultures. Familiarity ratings were not significantly correlated with drink-glass congruency for either culture. In contrast, the data for whisky, a beverage less familiar to Chinese than Americans, and Baijiu (a beverage less familiar to Americans than Chinese), and beer showed significant cross-cultural differences in willingness to pay as a function of perceived beverage-receptacle congruency suggesting learning and experience as influencing purchase-intent behaviors.

A related study, investigating conceptualized flavor as a function of glass shape (water, wine, cocktail) and beverage color (red, green, yellow, blue, orange, brown) in participants from the UK, India, and South Korea (Wan et al. 2015a), reported significant differences in color-flavor expectations, with some colors being more influential than others. For example, the British associated cranberry with the color red while the most common flavor associated with red for both the Indian and Korean participants was cherry, presumably reflecting learning as a consequence of culture-specific, food experiences. Cultural differences also occurred in terms of type of glass associated with an alcoholic drink. These data, taken together with those of Wan et al. (2015b), support the notion of culture-specific, implicit and explicit learning phenomena playing a significant role in how each of us is influenced by extrinsic aspects of foods and beverages.

Extrinsic factors influencing perception of wine were investigated across two European cultures, France and Spain, in a study reported by Saenz-Navajas et al. (2014). The study examined the notion that culture influences our perception of a product's quality, presumably because own-country products are more familiar than other-country products. French and Spanish wine consumers, who provided data concerning their wine knowledge and wine consumption patterns, categorized French and Spanish wines in terms of perceived quality. Consumers who had less experience of wine, termed lower wine-involvement consumers, tended to draw

on wine origin as the most important quality cue, favoring their own country. Consumers with higher levels of wine knowledge and/or involvement employed a wider range of cues that were available from observation of the wine bottle and its label(s) such as a specific appellation or classification term (e.g., “reserva” for Spanish wine). Again, the data demonstrate that domain-specific expertise can be as influential as cultural differences when appreciating the nuances of complex food products such as wine.

## **Studies Concerning Cerebral Representation: Thoughts, Attitudes, and Opinions**

Researchers investigating conceptual aspects of wine appreciation have considered a range of topics including wine’s perceived health benefits (Yoo et al. 2013) and attitudes toward low-alcohol wines (Bruwer et al. 2014). They have as well employed a range of methodologies, many researchers taking opportunities provided by newer technologies (e.g., online data collection).

### **Cerebral Representation Studies**

Cerebral representation methodologies (e.g., Parr et al. 2011) are used to gather data concerning how an individual, or a group of individuals, conceptualizes an aspect of their life (e.g., what they think about the beverage known as wine). In cognitive psychology, the notion of cerebral representation emphasizes the concept of semantic memory which describes the body of knowledge available to an individual. In social psychology, the concept is extended to refer to the collective thinking of a group of people such as their shared beliefs about an item or object (Jodelet 2008). According to Parr et al. (2011), thinking about wine means that we form representations or cognitive concepts of past tastings, ideas, and expectations to which any subsequent sensory experiences are linked. It follows then that the way we think about wines is related to our intimacy with this beverage (expertise level) and culture can play a fundamental role in this (Mouret et al. 2013).

In one of the few published cross-cultural studies, Mouret et al. (2013) investigated social representation of wine as a function of wine expertise and culture of participants. Using a verbal association task in which participants were asked about wine, they compared responses from experts (wine professionals) and nonexperts (wine consumers) from France and NZ. Results demonstrated participant-culture differences: While for French participants wine was related to friendship, red wine, and cheese, New Zealanders considered wine with different flavors as a subject of enjoyment, relaxation, and fun, and also linked wine to food in general. The authors concluded that culture was important in how wine is conceptualized, their data demonstrating specific ways in which participants from France (an Old World wine country) and NZ (a New World wine country) differed in their thinking about wine. Rodrigues et al. (2017) also used cerebral representation methodology in their investigation of cultural differences driving consumers’ representations of New- and Old-World wines. The authors compared responses of consumers

from Brazil, Czech Republic, and Sweden, using the respective native language of each country. Results demonstrated cultural differences. For “Old World wine,” Brazilians’ representations referred to sensory aspects of wine, sophistication, style, and emotions, whereas for European consumers, elements of history, context, old-wine production processes, aged wines, and tradition were associated with the category Old World wine. In the New-World-wine condition, Europeans associated wine with eco-friendly production, wine region, and international trade, while for Brazilians, this concept evoked the element exotic and the word emotion, along with sensory aspects previously associated by them for Old World wine. The authors concluded that the long history of wine in Europe and the greater wine consumption in that continent influenced European participants to be more precise in their wine representations than Brazilians who have a more recent history pertaining to wine and wine consumption.

To summarize this section, despite limited published research to date, it is clear that important cultural differences can be evoked when people from different geographical areas or ethnicities respond verbally to wine-stimulus words as are employed in cerebral representation methodology.

### **Studies Reporting Beliefs, Opinions, and Attitudes**

Various other methodologies have been employed to investigate a range of topics pertaining to wine conceptualization as a function of culture. Selected studies are discussed below.

Do et al. (2009) investigated attitudes, motives, and expectations of Vietnamese and French people toward wine consumption, the two cultures being selected as having very different wine-drinking and wine-production histories. Results showed that for Vietnamese, symbolic and utilitarian motivations were important (e.g., awareness of status or impression being made), whereas hedonic motivations such as experiential pleasures pertaining to actually drinking the wine appeared much weaker than in French respondents. The authors interpreted these results as in keeping with historical and contemporary aspects of the respective societies in terms of wider conceptualization of wine within each society.

Around the same time, Stolz and Schmid (2008) studied opinions, attitudes, and expectations of consumers from four countries (Switzerland, France, Italy, and Germany) concerning organic wines. Outcomes showed that, despite an overall positive image about organic practices and wines, each cultural group of consumers had different opinions. Whereas for Swiss consumers, positive opinions were found concerning authenticity of the product, the other cultures’ opinions were of neutral nature. In terms of the taste of organic wines, negative opinions were reported by French and German consumers, while responses from the Swiss and Italian consumers were neutral or demonstrated a lack of opinion on the subject, respectively. The authors attributed several factors as responsible for the negative image concerning taste of organic wine, including that organic producers focussed more on grape production rather than on wine processing. As well, it was suggested that the lack of presence of organic wines in specialized wine shops offering premium wines could contribute to consumers getting the impression that exclusive organic wines do not exist.

Another qualitative approach was taken in a study by De Magistris et al. (2011) who analyzed preferences for wine attributes of millennial generation participants (previously called “Generation Y”) in two countries, one from the New World (the USA) and another from the Old World (Spain) (According to Lancaster and Stilman (2002), “Generation Y” corresponds to those people born between 1977 and 1999. However, they may also be referred to as “Millennials.” With respect to wine, this is the consumer group currently in the spotlight and often comprising “connoisseurs.” Results indicated that American and Spanish Millennial consumers presented some similarities but also some differences in their wine attribute preferences. While millennial consumers in the USA attributed more importance to “I tasted the wine previously,” Spanish Millennials ascribed more importance to the designation of origin of a wine. Interestingly, when five consumer segments were identified, they could be characterized by traditional sociodemographic profiles and differed only in wine consumer preferences. This indication of cross-cultural differences for Generation Y agrees with recent research, suggesting that members of the same generation are likely to differ *within* a country (Ritchie et al. 2009) and *between* countries (Durvasula and Lysonski 2008). Also investigating opinions and attitudes of young wine consumers, Charters et al. (2011) compared engagement with champagne and sparkling wine of Generation Y consumers from five Anglophone countries (the USA, NZ, the UK, Australia, and South Africa). Results showed differences as well as similarities among the groups. In terms of differences, the UK consumers demonstrated superior knowledge about Champagne brands, while consumers from the other countries were more knowledgeable about wine production methods. The authors interpreted these results in terms of cultural differences impacting the knowledge levels of participants. All studied countries were traditional wine producers except the UK, the country whose participants displayed less understanding of production issues. In contrast, consumers from the UK were more aware of different grape varieties and wine styles. These data show that Generation Y consumers do not hold the same viewpoints and perspectives about wine across cultures, with their historical intimacy with wine production an important differentiating factor. In terms of similarities, for all countries, sparkling wine was considered feminine and a social drink by consumers of all countries.

Chang et al. (2016) explored influence of ethnicity of American wine consumers (along with other demographic characteristics such as gender and age group) on beliefs about wine and health. The wine consumers comprised African American, Hispanic, Asian, and White/Caucasian cultural groupings. Results demonstrated differences in the level of health consciousness as a function of ethnicity, with African and Asian American people more concerned about their health when compared with other ethnic groups. In terms of other ethnic differences, African Americans reported that sparkling wines were healthier than other wine categories, leading the authors to conclude that African Americans may be more convinced by the popular belief that bubbles can help with digestion. This research is particularly interesting in that the authors contrasted beliefs of different ethnicities within the same country, demonstrating that even when born in the same country, ethnic origin may play a role in people’s conceptualizations pertaining to food and beverages.

Finally, an interesting cross-cultural study by McIntyre et al. (2016) investigated attitudes of alcohol consumers who chose *not* to drink wine. To understand the participants' lack of wine appreciation, alcohol consumers from five countries, Australia, Canada, the UK, the USA, and India, answered questions online. Overall, the study reported more similarities across cultures than differences. An implicit dimension, not liking the taste of wine, was the major determinant of wine avoidance for participants of all five countries investigated. Indian consumers in particular were influenced by a wine's taste, reporting that "fake" wines were prevalent in India, tasted unpleasant, and were difficult to discriminate from "real" wines when purchasing wine. Several sociocultural effects were reported including the notion that wine is perceived as "European," and the importance of "image" for Indian participants, a similar association of wine and status having been reported previously for Chinese consumers (Liu and Murphy 2007).

Overall, the studies reported above demonstrate both similarities and differences across cultures in how wine is conceptualized, and in terms of how people consider key aspects such as health benefits, sensory expectations, and wine consumption. A particularly interesting result observed concerns the interaction between generation or cohort (i.e., age of participants) and culture, opening up an avenue for future study.

## Emotional Response to Wine

The last decade has seen an increase in sensory and consumer studies investigating emotional response to food and beverages including wine (e.g., Porcherot et al. 2015; Silva et al. 2016; van Zyl and Meiselman 2016; Danner et al. 2016; Sulmont-Rossé et al. 2019). From research in Anthropology and Psychology concerning cultural construction of emotions, we know that although cultures share some aspects of emotional response (Eckman 1992), they can differ in what they consider to constitute an emotion, and in which emotions are considered normal or acceptable (Kitayama et al. 2006; Mesquita et al. 2016), these factors potentially influencing wine appreciation. Few studies however have interpreted their data concerning emotional responses to wine or wine consumption by inferring the specific underlying or associated cognitive processes. This overview selectively focuses on published, cross-cultural studies that are theoretically driven, rather than merely descriptive. A further qualification is that it is outside the scope of this chapter to address currently topical issues pertaining to defining and measuring emotional response to food and beverages (Prescott 2017).

The notion that emotional response to wine and other beverages may differ across cultures has its basis in fundamental research such as that demonstrating variability in affective responses to odors (e.g., Ferdenzi et al. 2013), odors being extremely important in wine appreciation (Parr 2003). In their study, Ferdenzi et al. considered the influence of top-down cognitive processes in the form of odor knowledge and familiarity on intensity and valence (i.e., positivity) of affective response to odors by participants in the UK, Switzerland, and Singapore. Using 56 odorous stimuli, the

authors reported significant cross-cultural differences in ratings of pleasantness, familiarity, and intensity of many of the odors. For example, mushroom was more familiar and judged to be more pleasant and more intense by the Swiss than by the Singaporeans. On the other hand, there was a less intense response to disgust by the Singaporeans than by the Europeans to durian, a fruit popular in Singapore but less well known in Western countries. The data also showed gender to interact with cultural differences with Swiss men giving higher affective ratings to happiness/well-being, sensuality/desire, energy, and disgust than women participants, while such gender differences did not occur in the UK or Singapore groups. The authors drew on cultural experience and learning as a likely source of demonstrated cultural differences in olfactory knowledge and affective response, implicating top-down cognitive influence in the form of an associative, verbal network of odors, this network developed on the basis of a participant's past experience. A further, important fundamental result demonstrated was the asymmetrical nature of response to pleasant versus unpleasant odors, with the positive association between olfactory knowledge and affective ratings occurring for pleasant but not for unpleasant odors.

In terms of applied research specific to wine, van Zyl and Meiselman (2015) investigated cultural differences in emotional responses to beverages including wine. Vocabulary has been identified as important in how an individual describes or reports emotional response (Prescott 2017), and van Zyl and Meiselman singled out language as a key aspect of culture for consideration in their 2015 study. In this study and an updated component (van Zyl and Meiselman 2016), participants from English-speaking countries (Australia, NZ, the UK, the USA), Spanish-speaking countries (Spain, Mexico), and Portuguese-speaking countries (Portugal, Brazil) reported their favorite and least-liked beverage and the emotions they associated with each. Results showed that participants from English-speaking countries along with those from Mexico and Brazil produced similar emotional responses to wine, while respondents from Spain and Portugal were similar to each other in their emotional reactions to wine. The authors emphasized the importance of considering language in relation to reported emotional response evoked by beverages although did not elaborate upon precisely how culture affects language use in relation to emotions evoked by beverages.

In an innovative study with a clear cognitive orientation, and using focus-group methodology that included participants actually tasting beverages, Silva et al. (2016) investigated how Dutch and Portuguese conceptualize and respond emotionally to wine, beer, and nonalcoholic beer consumption across various contexts. The authors implicated two processes as determining conceptualization, namely identification of the product and generation of associations toward the product (e.g., healthy, makes me feel happy). With the premise that the Dutch were more closely linked with beer production and consumption, while the Portuguese links are with wine, the authors hypothesized likely cultural differences in conceptualization of beer and wine as a function of culture. Results showed that Dutch and Portuguese overall conceptualized beer and wine similarly, with differences in conceptualization more related to beverage type than to culture. Wine was conceptualized as associated more with social attributes such as communication and celebration than beer, and linked to

emotional associations of calmness, loving, and fulfilled. Beer on the other hand was associated with emotional responses of energetic, adventurous, and free. One of the few cross-cultural effects reported was that special beers were singled out by the Dutch participants who conceptualized them as closer to wine than to beer, associating them with emotional terms happiness, comfort, and delight.

In the study investigating hedonic responses of wine consumers from Australia, the UK, and the USA reported recently by Ristic et al. (2019) and described in the section “**Hedonic Judgments**” above, emotional responses to nine selected wine aromas were also investigated via the ScentMove™ scale (Porcherot et al. 2015). Participants rated how strongly an aroma made them feel in relation to six groups of emotions (relaxed, nostalgic, happy, disgusted, romantic, and energetic). Several cross-cultural effects emerged. For example, emotions evoked to “strawberry” and “chocolate” were similar for the USA and the UK respondents while “pepper” evoked similar emotional responding in Australian and the UK consumers. As with the hedonic data reported above, variables other than a respondent’s country (e.g., wine consumption frequency, context of consumption) were major influences on the dominant emotions evoked to the various aromas.

In summary, although the study of emotional response to beverages is in its infancy, it is clear from the studies reported to date that culture, and the socialization and cognitive/learning processes inherent in this term, is an important individual-difference variable, determining how each of us appreciates a wine. From a theoretical perspective, many of the reported results support the notion that our cognitive processes (perception, memory, classification, judgment, language) are linked intimately with our emotional processes when we taste wine, allowing an individual’s sensory-driven experience to take on a global dimension or totality (Table 1).

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## **Methodological Issues of Significance to Cross-Cultural Research**

While many methodological aspects can influence validity of a study’s outcomes, inherent in cross-cultural research are several extra considerations. Two of these we highlight below.

### **Lost in Translation**

Language and thought are closely associated cognitive processes, with the ways in which perceptual and thought processes are related to language long a topic of interest in Psychology (Whorf 1956). It follows then that when comparing verbal and behavioral responses from people of different cultures, researchers need to consider not only linguistic equivalence (vocabulary equivalence) but functional and cultural equivalence in all terminology employed within data collection instruments and instructions to participants (Pena 2007). Rajan and Makani (2016), in their review of methodological and theoretical aspects of translation in cross-cultural studies, raise concerns not only about lack of attention to linguistic equivalence,

**Table 1** Summary of published studies on cross-cultural aspects of wine appreciation: type of participant, region of origin of participant, methodology, and main result

Authors	Year of publication	Type of participants	Culture of participants	Major result
<i>Intrinsic factors</i>				
Torri, Noble & Heymann	2012	Wine consumer	USA and Italy	No consistent support for the notion of familiarity in cultural differences
Williamson, Robichaud & Francis	2012	Wine consumer	Australia and China	More similarities than differences among both cultures were reported
Parr et al.	2015	Wine expert	France and New Zealand	More similarities than differences. Dissociation between wine liking and wine familiarity for French participants
Ristic et al.	2019	Wine consumer	Australia, UK, and USA	Demographic factors had greater effects than geographic location of participants
Saenz-Navajas et al.	2013	Wine consumer and wine expert	France and Spain	Expertise rather than culture as the major driver of quality judgments in wines
Valentin et al.	2016	Wine expert	France and New Zealand	Expertise rather than culture or geographical location as the major driver of quality judgments in Pinot noir wines
Saenz-Navajas et al.	2013	Trained panelist	France and Spain	Cultural differences were found due to different cultural histories
<i>Extrinsic factors</i>				
Yoo et al.	2001	Wine consumer	South Korea and Australia	Wine purchase and consumption behavior were impacted by cultural influence via top-down cognitive processing
Wan, Zhou, et al.	2015	Wine consumer	China and USA	Culture-specific, implicit and explicit learning phenomena play a significant role in extrinsic aspects
Wan, Woods, et al.	2015	Wine consumer	UK, India, and South Korea	Culture-specific, implicit and explicit learning phenomena play a

(continued)



**Table 1** (continued)

Authors	Year of publication	Type of participants	Culture of participants	Major result
				significant role in extrinsic aspects
Saenz-Navajas, Ballester, Peyron, & Valentin	2014	Wine consumer	France and Spain	Expertise can be as influential as cultural differences
<i>Conceptual factors</i>				
Mouret, Lo Monaco, Urdapilleta & Parr	2013	Wine consumer and wine expert	New Zealand and France	Social representation of wine differed as a function of wine expertise and culture
Rodrigues et al.	2017	Wine consumer	Brazil, Sweden, and Czech Republic	Level and history of consumption had greater precision effects than cultural aspects on wine representation
Do, Patris & Valentin	2009	Wine consumer	Vietnam and France	Historical and contemporary aspects of the cultures imply a broader conceptualization of wine for both
Stolz & Schimid	2008	Wine consumer	Switzerland, France, Italy, and Germany	Different opinions about organic products were demonstrated depending on the culture of participants
De Magistris, Groot, Gracia & Albisu	2011	Wine consumer	Spain and USA	Both consumer segmentation and culture play a significant role in conceptual aspects
Charters et al.	2011	Wine consumer	USA, New Zealand, UK, Australia, and South Africa	Cultural differences impacted the knowledge levels of participants
Chang, Thach & Olsen	2016	Wine consumer	Ethnicities in USA (African, Asian Hispanic, and White/Caucasian)	Ethnic origin (subcultural category) may play a role in people's conceptualizations
McIntyre, Ovington, Saliba & Moran	2015	Wine consumer	Australia, Canada, UK, USA, and India	More similarities across cultures than differences were reported

(continued)

**Table 1** (continued)

Authors	Year of publication	Type of participants	Culture of participants	Major result
<i>Emotional aspects</i>				
van Zyl & Meiselman	2015; 2016	Wine consumer	Australia, New Zealand, UK, USA, Spain, Mexico, Portugal, and Brazil	Language was considered important in relation to reported emotional response evoked by wine
Silva et al.	2016	Wine consumer	The Netherlands and Portugal	Differences in conceptualization more related to beverage type than culture
Ferdenzi et al.	2013	Wine consumer	UK, Singapore, and Switzerland	Cultural experience and learning as a likely source of demonstrated cultural differences
Ristic et al.	2019	Wine consumer	Australia, UK, and USA	Variables other than geographic origin (e.g., wine consumption frequency, context of consumption) were major influences on the dominant emotions evoked

potentially threatening content validity of data, but also about ethnocentricity. Discussion of these issues in detail is beyond the scope of this chapter, but it behoves all cross-cultural researchers to be aware of such potential problems. One major aspect to be mindful of is that linguistic equivalence does not necessarily imply conceptual/functional equivalence and/or cultural equivalence for many reasons (e.g., salience, familiarity). Pena (2007) defines functional equivalence as ensuring that instructions to participants and text within data-collection instruments will elicit the same target behaviors from the various linguistic groups. Cultural equivalence concerns how participants of various cultures will interpret the words: i.e., Will translated text tap into the same cultural meaning for each linguistic group? Methods exist for improving functional equivalence (e.g., dual-focus approach), and where possible involving researchers with the relevant bilingual and multilingual competencies should be advantageous in all cross-cultural studies, minimizing the risk of ethnocentricity and ensuring cultural and functional linguistic equivalence. As well, projective techniques from psychological research may offer an alternate methodological approach, one that minimizes language differences.

### **Defining “Culture” in an Increasingly Globalized World Context**

Most published research that employs the term “cross-cultural” in the title reports studies involving national (e.g., ethnic differences, also called “sub-cultural” – see

Sobal (1998) for a review) or international comparisons of individuals, defining culture in terms of individuals' ethnicity or geographical location. Given our increasingly connected world, it is not surprising that some researchers are considering definitions of culture that venture beyond ethnic origin and geographical location. Culture-as-situated cognition theory (Oyserman 2016) exemplifies this approach, arguing that individuals can shift between cultural mind-sets, depending on context. Nonetheless, it remains that despite those recent developments such as the ease of international travel and the rise of the internet there remain significant differences among people from varying cultures in terms of the foods and beverages they consume regularly (Albala 2011).

## Internet Data Collection

Recent years have seen increased data collection in the field, faster data collection, and a change in the dominant methodologies employed, presumably due to the options afforded by digital technology. The use of the internet to facilitate cross-cultural data collection can be seen by comparing two special issues, each in a renowned, scientific journal, and dedicated specifically to cross-cultural research on food and consumer science: the pioneer in 1998 (Tuorila 1998), and a second 20 years later (Rodrigues et al. 2019), this recent special issue presenting several studies involving internet data collection.

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## Summary: Contribution of Cross-Cultural Research to Understanding Wine Appreciation

Cross-cultural research involving wine and wine tasting, employing a range of methodologies and investigating a range of topics, is beginning to provide evidence of the importance of our experiential histories in influencing how we appreciate wine. In particular, several of the studies discussed above demonstrate the importance of wine tasters' top-down cognitive processing, in other words their prior experience, in how they conceptualize and appreciate wine. Notable findings to exemplify this include those reporting both similarities and differences as a function of culture. In terms of cultural similarities, the importance of wine expertise in minimizing potential cross-cultural differences in wine appreciation was demonstrated by Parr et al. (2015) and Valentin et al. (2016). Important findings where differences were demonstrated include: differences in opinions of consumers across several European countries concerning organic practices (Stolz and Schmid 2008); demonstration of differences in rating scale usage by Chinese and Australian consumers (Williamson et al. 2012); use of different terminology to describe red wine characteristics by French and Spanish trained panelists (Saenz-Navajas et al. 2013); and cultural differences in consumers' responses to beverage serving glassware (Wan et al. 2015b).

Several studies demonstrate also the limits of culture's influence, especially when culture is defined in terms of geographical location or ethnicity. For example,

studies involving wine professionals demonstrate clearly that domain-specific expertise (i.e., wine knowledge) can override cultural differences. In their study concerning perception of mineral character in wine, Parr et al. (2015) demonstrate that wine professionals from very different cultures (France, NZ) perform complex oenological tasks similarly, presumably sharing a cognitive construct concerning the abstract notion of minerality in Sauvignon blanc wine irrespective of their vastly different cultural histories.

Further, inconsistent results in several studies where familiarity is implicated as reflecting cultural experience (e.g., when Californian and Italian wine consumers judged Californian wines as more likeable), conceivably occurred due to cultural influence factors wider than geographical location. Culture-as-situated cognition theory (Oyserman 2016) takes such factors into account, arguing that individuals can shift between cultural mind-sets, depending on context. Hence, an Italian wine consumer who regularly drinks international wines may be of Italian “culture” but when in a wine-tasting context may function cognitively by drawing on mental representations of wine that have developed via socialization into a multicultural wine world. In other words, cultural distances are not only geographic but may be ethnic and may even relate to an object of “global dominance” as is the case of wine and health.

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## Conclusion and Directions for Future Research

Future research, both basic and applied (e.g., marketing), could be advantaged by attention to several aspects. First, researchers need to move beyond merely describing cross-cultural effects, and to focus more on understanding the specific nature of culturally driven, top-down influence by drawing on theories of perception, cognition, and emotion to interpret data. This in turn will deepen our understanding of wine-tasting phenomena as a function of culture. Second, there is a need for an increase in theoretically driven studies. Exemplifying the need for more theory in the research field is work drawing on the assumed intervening variable of familiarity as an explanatory concept for study results. However, familiarity is a more complex concept than many authors investigating cross-cultural phenomena have considered. Our regular exposure to certain wines rather than others conceivably leads to development of mental constructs, these in turn giving rise to expectations concerning fundamentals such as “What actually constitutes a wine?” through to “Is this a quality wine?” in more experienced wine drinkers. However, familiarity as largely determined by geographical location and repeated exposure has limits in terms of its influence, with familiarity interacting with wine domain-specific expertise and other forms of socialization. Third and of major importance, culture as a variable requires clarity in terms of definition in any particular study, not least because cultural socialization and our cognitive and emotional processes are inherently linked. Further, given an increasingly connected world, geographical location per se conceivably may become less relevant than other factors such as

sociodemographic status in determining individual differences in how we appreciate food and beverages.

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## References

- Abraben, L. A., Grogan, K. A., & Gao, Z. (2017). Organic price premium or penalty? A comparative market analysis of organic wines from Tuscany. *Food Policy, 69*, 154–165.
- Albala, K. (Ed.). (2011). *Food cultures of the world encyclopaedia*. Westport: Greenwood Press.
- Bruwer, J., Jiranek, V., Halstead, L., & Saliba, A. (2014). Lower alcohol wines in the UK market: Some baseline consumer metrics. *British Food Journal, 116*, 1143–1161.
- Carré, A. (1987). Wine and maritime history. *The Mariner's Mirror, 73*(1), 21–31.
- Chang, K. J., Thach, M. L., & Olsen, J. (2016). Wine and health perceptions: Exploring the impact of gender, age and ethnicity on consumer perceptions of wine and health. *Wine Economics and Policy, 5*(2), 105–113.
- Charters, S., Velikova, N., Ritchie, C., Fountain, J., Thach, L., Dodd, T. H., & Terblanche, N. (2011). Generation Y and sparkling wines: a cross-cultural perspective. *International Journal of Wine Business Research, 23*(2), 161–175.
- Chrea, C., Valentin, D., Sulmont-Rossé, C., Hoang Nguyen, D., & Abdi, H. (2005). Semantic, typicality and odor representation: A cross-cultural study. *Chemical Senses, 30*, 37–49.
- Danner, L., Ristic, R., Johnson, T. E., Meiselman, H. L., Hoek, A. C., Jeffery, D. W., & Bastian, S. E. P. (2016). Context and wine quality effects on consumers' mood, emotions, liking and willingness to pay for Australian Shiraz wines. *Food Research International, 89*, 254–265.
- de Magistris, T., Groot, E., Gracia, A., & Miguel Albisu, L. (2011). Do millennial generation's wine preferences of the "New World" differ from the "Old World"? A pilot study. *International Journal of Wine Business Research, 23*(2), 145–160.
- Do, V. B., Patris, B., & Valentin, D. (2009). Opinions on wine in a new consumers country: A comparative study of Vietnam and France. *Journal of Wine Research, 20*, 253–271.
- Durvasula, S., & Lysons, S. (2008). A double-edged sword: understanding vanity across cultures. *Journal of Consumer Marketing, 25*(4), 230–244.
- Eckman, P. (1992). An argument for basic emotions. *Cognition & Emotion, 6*(3–4), 169–200.
- Fehér, J., Lengyel, G., & Lugasi, A. (2007). The cultural history of wine-theoretical background to wine therapy. *Central European Journal of Medicine, 2*(4), 379–391.
- Ferdenzi, C., Roberts, S. C., Schirmer, A., Delplanque, S., Cekic, S., Porcherot, C., Cayeux, I., Sander, D., & Grandjean, D. (2013). Variability of affective responses to odors: Culture, gender, and olfactory knowledge. *Chemical Senses, 38*, 175–186.
- Grube, G. M. A. (1935). Dionysus in the Bacchae. *Transactions and Proceedings of the American Philological Association, 66*, 37–54. American Philological Association.
- Hidalgo-Baz, M., Martos-Partal, M., & Gonzalez-Benito, O. (2017). Assessments of the quality of organic versus conventional products, by category and cognitive style. *Food Quality and Preference, 62*, 31–37.
- Imai, M., Kanero, J., & Masuda, T. (2016). The relation between language, culture, and thought. *Current Opinion in Psychology, 8*, 70–77.
- Jodelet, D. (2008). Social representations: The beautiful invention. *Journal for the Theory of Social Behaviour, 38*, 411–430.
- Kastanakis, M. N., & Voyer, B. G. (2014). The effect of culture on perception and cognition: A conceptual framework. *Journal of Business Research, 67*, 425–433.
- Keskitalo, K., Knaapila, A., Kallela, M., Palotie, A., Wessman, S., Sammalisto, L., Peltonen, H., Tuorila, H., & Perola, M. (2007). Sweet taste preferences are partly genetically determined: Identification of a trait locus on chromosome 16(1-3). *American Journal of Clinical Nutrition, 86*, 55–63.

- Kim, Y.-K., Jombart, L., Valentin, D., & Kim, K.-O. (2013). A cross-cultural study using Napping®: Do Korean and French consumers perceive various green tea products differently? *Food Research International*, 53, 534–542.
- Kim, S.-H., Petard, N., & Hong, J.-H. (2018). What is lost in translation: A cross-cultural study to compare the concept of nuttiness and its perception in soymilk among Korean, Chinese, and Western groups. *Food Research International*, 105, 970–981.
- Kitayama, S., Mesquita, B., & Karasawa, M. (2006). Cultural affordances and emotional experience: Socially engaging and disengaging emotions in Japan and the United States. *Journal of Personality and Social Psychology*, 91, 890–903.
- Lancaster, L. C., & Stillman, D. (2002). *When generations collide: Who they are, why they clash, how to solve the generational puzzle at work* (pp. 53–54). New York: HarperCollins.
- Lee, H.-S., & Lopetcharat, K. (2017). Effect of culture on sensory and consumer research: Asian perspectives. *Current Opinion in Food Science*, 15, 22–29.
- Liu, F., & Murphy, J. (2007). A qualitative study of Chinese wine consumption and purchasing. *International Journal of Wine Business Research*, 19, 98–113.
- Maslow, A. H. (1937). The influence of familiarization on preferences. *Journal of Experimental Psychology*, 21, 162–180.
- McIntyre, E., Ovington, L. A., Saliba, A. J., & Moran, C. C. (2016). Qualitative study of alcohol consumers who choose to avoid wine. *Australian Journal of Grape and Wine Research*, 22, 182–189.
- Mesquita, B., Boiger, M., & De Leener, J. (2016). The cultural construction of emotions. *Current Opinion in Psychology*, 8, 31–36.
- Morrot, G., Brochet, F., & Dubourdieu, D. (2001). The color of odors. *Brain and Language*, 79, 309–320.
- Mouret, M., Lo Monaco, G., Urdapilleta, I., & Parr, W. V. (2013). Social representations of wine and culture: A comparison between France and New Zealand. *Food Quality and Preference*, 30(2), 102–107.
- Oyserman, D. (2016). What does a priming perspective reveal about culture: culture-as-situated cognition. *Current Opinion in Psychology*, 12, 94–99.
- Pangborn, R. M., Guinard, J.-X., & Davis, R. G. (1988). Regional aroma preferences. *Food Quality and Preference*, 1, 11–19.
- Parr, W. V. (2003). The ambiguous nature of our sense of smell. *The Australian & New Zealand Grapegrower & Winemaker: 31st Annual Technical Issue*, 473A, 114–116.
- Parr, W. V., White, K. G., & Heatherbell, D. (2003). The nose knows: Influence of colour on perception of wine aroma. *Journal of Wine Research*, 14(2–3), 79–101.
- Parr, W. V., Mouret, M., Blackmore, S., Pelquest-Hunt, T., & Urdapilleta, I. (2011). Representation of complexity in wine: Influence of expertise. *Food Quality and Preference*, 22(7), 647–660.
- Parr, W. V., Ballester, J., Peyron, D., Grose, C., & Valentin, D. (2015). Investigation of perceived minerality in Sauvignon wines: Influence of culture and mode of perception. *Food Quality and Preference*, 41, 121–132. <https://doi.org/10.1016/j.foodqual.2014.12.001>.
- Pena, E. D. (2007). Lost in translation: Methodological considerations in cross-cultural research. *Child Development*, 78, 1255–1264.
- Porcherot, C., Petit, E., Giboreau, A., Gaudreau, N., & Cayeux, I. (2015). Measurement of self-reported affective feelings when an aperitif is consumed in an ecological setting. *Food Quality and Preference*, 39, 277–284.
- Prescott, J. (2012). *Taste, matters: Why we like the foods we do*. London: Reaktion Books.
- Prescott, J. (2015). Multisensory processes in flavour perception and their influence on food choice. *Current Opinion in Food Science*, 3, 47–52.
- Prescott, J. (2017). Some considerations in the measurement of emotions in sensory and consumer research. *Food Quality and Preference*, 62, 360–368.
- Rajan, M. N., & Makani, B. (2016). Methodological considerations in cross-cultural research: A discussion of the translation issue. *Journal of Business and Behavioral Sciences*, 28, 37–54.

- Ristic, R., Danner, L., Johnson, T. E., Meiselman, H. L., Hoek, A. C., Jiranek, V., & Bastian, S. E. P. (2019). Wine-related aromas for different seasons and occasions: Hedonic and emotional responses of wine consumers from Australia, UK and USA. *Food Quality and Preference*, *71*, 250–260.
- Ritchie, C., Ritchie, F., & Ward, R. (2009). A good night out: alcohol-related behaviour in young adults. *Worldwide Hospitality & Tourism Themes*, *1*(2), 169–193.
- Rodrigues, H., & Parr, W. V. (2019). Contribution of cross-cultural studies to understanding wine appreciation: A review. *Foodservice Research International*, *115*, 251–258. <https://doi.org/10.1016/j.foodres.2018.09.008>.
- Rodrigues, H., Valentin, D., Tomášková, L., Othéguy, M., Honoré-Chedozeau, C., Baroň, M., Behrens, J. H., & Otterbring, T. (2017). Effect of culture on conceptual representation of new and old world wine: A comparison between Brazil, Czech Republic and Sweden. Poster presentation at the 12th SLACA Symposium, Campinas, SP, Brazil, November, 2017.
- Rodrigues, H., Otterbring, T., Piqueras-Fiszman, B., & Gómez-Corona, C. (2019). Introduction to special issue on Global Perspectives on Sensory and Consumer Sciences: A cross-cultural approach. *Food Research International (Ottawa, Ont.)*, *116*, 135.
- Saenz-Navajas, M.-P., Ballester, J., Pecher, C., Peyron, D., & Valentin, D. (2013). Sensory drivers of intrinsic quality of red wines. Effect of culture and level of expertise. *Food Research International*, *54*, 1506–1518.
- Saenz-Navajas, M.-P., Ballester, J., Peyron, D., & Valentin, D. (2014). Extrinsic attributes responsible for red wine quality perception: A cross-cultural study between France and Spain. *Food Quality and Preference*, *35*, 70–85.
- Shankar, M. U., Levitan, C., & Spence, C. (2010). Grape expectations: The role of cognitive influences in color-flavor interactions. *Consciousness & Cognition*, *19*, 380–390.
- Silva, A. P., Jager, G., van Bommel, R., van Zyl, H., Voss, H.-P., Hogg, T., Pintado, M., & de Graaf, C. (2016). Functional or emotional? How Dutch and Portuguese conceptualise beer, wine and non-alcoholic beer consumption. *Food Quality and Preference*, *49*, 54–65.
- Sobal, J. (1998). Cultural comparison research designs in food, eating, and nutrition. *Food Quality and Preference*, *9*, 385–392.
- Stolz, H., & Schmid, O. (2008). Consumer attitudes and expectations of organic wine. Organic wine and viticulture conference. Levizzano, Italy, 2008. Online verfügbar unter <http://orgprints.org/13974>.
- Sulmont-Rossé, C., Drabek, R., Almi, V. L., van Zyl, A., Silva, A. P., Kern, M., McEwan, J. A., & Ares, G. (2019). A cross-cultural perspective on feeling good in the context of foods and beverages. *Food Research International*, *115*, 292–301.
- Torri, L., Noble, A. C., & Heymann, H. (2012). Exploring American and Italian consumer preferences for Californian and Italian red wines. *Journal of the Science of Food and Agriculture*, *93*, 1852–1857.
- Tuorila, H. (1998). Cross-cultural sensory and consumer research on foods. *Food Quality and Preference*, *9*(6), 383.
- Valentin, D., Parr, W. V., Peyron, D., Grose, C., & Ballester, J. (2016). Colour as a driver of Pinot noir wine quality judgements: An investigation involving French and New Zealand wine professionals. *Food Quality and Preference*, *48*, 251–261.
- Van der Loos, H. (1965). *The miracles of Jesus* (p. 599). Leida, The Netherlands: E.J. Brill Press.
- van Zyl, H., & Meiselman, H. L. (2015). The roles of culture and language in designing emotion lists: Comparing the same language in different English and Spanish speaking countries. *Food Quality and Preference*, *41*, 201–213.
- van Zyl, H., & Meiselman, H. L. (2016). An update on the roles of culture and language in designing emotion lists: English, Spanish and Portuguese. *Food Quality and Preference*, *51*, 72–76.
- Wan, X., Woods, A. T., Seoul, K.-H., Butcher, N., & Spence, C. (2015a). When the shape of the glass influences the flavour associated with a coloured beverage: Evidence from consumers in three countries. *Food Quality and Preference*, *39*, 109–116.

- Wan, X., Zhou, X., Woods, A. T., & Spence, C. (2015b). Influence of the glassware on the perception of alcoholic drinks. *Food Quality and Preference, 44*, 101–110.
- Whorf, B. L. (1956). *Language, thought, and reality: Selected writings of Benjamin Lee Whorf*. Cambridge, MA: MIT Press.
- Williamson, P. O., Robichaud, J., & Francis, I. L. (2012). Comparison of Chinese and Australian consumers' liking for red wines. *Australian Journal of Grape and Wine Research, 18*, 256–267.
- Yoo, Y. J., Saliba, A. J., MacDonald, D. D., Prenzler, P. D., & Ryan, D. (2013). A cross-cultural study of wine consumers with respect to health benefits of wine. *Food Quality and Preference, 28*, 531–538.