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Does pleasure facilitate healthy drinking? The role of epicurean pleasure in the regulation of wine consumption

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Abstract

Research on food psychology demonstrates that epicurean eating tendencies (i.e., esthetic appreciation of the sensory and symbolic value of food), similar to health concerns, tend to be associated with more regulated eating behaviors. Given that wine is already a product that is more pleasure-oriented, the question to be addressed here is whether such epicurean tendencies exert a similar effect in terms of moderating wine consumption. Two online studies demonstrate that, contrary to this suggestion, people with epicurean drinking tendencies in fact report drinking wine more frequently, and in larger quantities, than those with health beliefs. That said, when such pleasure is explicitly emphasized through textual cues, it appears to promote more regulated wine consumption. Impaired control mediates the effects of drinking tendencies as well as the effects of cueing on wine consumption. These results highlight how stressing epicurean pleasure might prove to be an effective strategy for those marketers and public authorities wanting to promote responsible wine consumption. Success in this regard might depend on whether it is the perception of the product that is cued rather than the consumers' self-perceived wine consumption.

1 | INTRODUCTION

Worldwide wine consumption in 2020 was estimated at 234 million hectoliters (NCES, 2021). The wine industry employs nearly one million people and brings in \$300 billion annually (Académie du vin Library, 2021). In the United States, around one in three adults report consuming wine at least once a month, that is, around 77 million people (Wine Intelligence US Landscapes, 2020). Although excessive wine consumption is associated with the development of chronic disease, a wealth of data highlight the existence of an inverse relationship between moderate wine consumption and the risk of coronary heart disease (Arif & Rohrer, 2005; Castaldo et al., 2019; Haseeb et al., 2017; Yoo et al., 2021). These effects of wine on health have led some researchers to wonder about the factors affecting wine

consumption (Charters & Pettigrew, 2008; Goode, 2005; Hall et al., 1997; Moran & Saliba, 2012; Taylor et al., 2018). Researchers generally focus on those elements leading to increased consumption, and have identified the enhancement of pleasure as one of the key motives (Cooper et al., 1992; Kuntsche et al., 2005, 2006; Mezquita et al., 2011). Nevertheless, they have not considered the possibility that there might be several different kinds of pleasure enhancement that could potentially affect wine consumption differently. Researchers studying food often choose to distinguish between epicurean and visceral pleasure (Cornil & Chandon, 2016a). The former is defined as: “*The enduring pleasure derived from the aesthetic appreciation of the sensory and symbolic value of the food*” (Cornil & Chandon, 2016a, p. 52). It is associated with more regulated food behaviors, unlike visceral pleasure. The latter, by contrast, is defined

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as “*The by-product of relieving a visceral urge, often beyond eaters' volitional control, and it can be summarized by its valence (pleasant or unpleasant) regardless of the rich aesthetic experience of eating*” (Cornil & Chandon, 2016a, p. 52). The present research is designed to investigate whether epicurean pleasure might have similar effects on the consumption of wine and thus, can potentially be used by marketers and policy makers to promote responsible wine consumption.

Historically, consumers have drunk wine for hedonic pleasure and the wide spectrum of sensory characteristics and physiological consequences that it provides (Charters & Pettigrew, 2007; Jackson, 2014; Yang & Lee, 2020). The interrelated role of sensory, emotional, and cognitive responses has led some authors to compare the consumption of wine with that of esthetic products (Charters & Pettigrew, 2005; Korsmeyer, 2015; Sibley, 2001). Referring to the literature on food, epicurean pleasure might be associated with more responsible wine consumption (Cornil & Chandon, 2016a). Cornil and Chandon (2016a) reported that those individuals with epicurean eating tendencies, such as those with health concerns, tend to prefer smaller food portions, unlike those with visceral eating tendencies. Such results lead one to consider whether such epicurean tendencies might also be associated with the more regulated consumption of wine. However, for that, the epicurean pleasure of drinking wine would have to be similar to that of eating food.

Finding nutritious foods is one of the brain's most important functions, for which pleasure can play different supportive roles (Laska et al., 2007; Spence et al., 2016). Expected pleasure is generally associated with the satisfaction of hunger, and can trigger visceral urges to eat in order to get nutrients (Berridge, 2009; Petit, Basso, et al., 2016; Petit, Merunka, et al., 2016). That said, the pleasure during consumption could also be more epicurean in nature. This pleasure is related to the appreciation of the esthetics and sensory properties of food (Cornil & Chandon, 2016a, 2016b). It has been shown to serve as an indicator of satiety, suggesting to people that they have taken in sufficient nutrients, and so should probably stop eating (Berridge, 2009; Petit, Basso, et al., 2016; Petit, Merunka, et al., 2016). Even though it has been suggested that the moderate consumption of red wine may deliver certain health benefits (e.g., beneficial effects of polyphenolic compounds), it does not meet a physiological need (Snopek et al., 2018; Yoo et al., 2010). In other words, people do not need to drink wine to get the nutrients they need. It is thus not certain that such positive effects of epicurean pleasure on self-regulation derived from satiety will necessarily apply in the case of (red) wine. By contrast, visceral pleasure has already been identified as a key motive for alcohol (including wine) consumption (Cooper et al., 1992; Kuntsche et al., 2005, 2006; Mezquita et al., 2011). Relying on pleasure (no matter whether visceral or epicurean) to promote responsible consumption would therefore not be a good strategy for marketers and policy makers. Even so, using communications cues that are focused on epicurean pleasure may, on the contrary, be used to reduce wine consumption. In some cases, cueing pleasure in communication messages has been shown to alert people to the dangers of excessive consumption (Chandon & Wansink, 2007; Fishbach et al., 2003; Wertenbroch, 1998). It is therefore important to separate the effects

of the epicurean pleasure that may be derived from stable individual drinking tendencies from the immediate effects of marketing cues.

In order to better understand the effect of epicurean pleasure on wine (especially red) consumption, this article first discusses the theoretical background related to this topic (Section 2). Study 1 (Section 3) is designed to test whether epicurean drinking tendencies are significantly correlated with the frequency and volume of consumption, and to make a comparison with health beliefs and visceral drinking tendencies. Study 2 (Section 4) replicates and extends Study 1, analyzing the effects of messages cueing epicurean pleasure, visceral pleasure, and health concerns on wine consumption. This second study thus makes it possible to compare the effect of epicurean pleasure on red wine consumption as a function of whether it is promoted through messages or whether instead it comes from the consumers' self-perception of their consumption. The general discussion (Section 5) includes a summary of the findings, highlights the key theoretical and managerial implications, as well as limits and perspectives for further research. These studies advance research on wine consumption, by providing a better understanding of the role of epicurean pleasure, clarifying whether it is linked to individual drinking tendencies, or to the promotion of epicurean pleasure through communication cues. This research thus has important managerial implications for marketers and policy makers. It shows that it would be preferable to encourage wine drinkers to take an interest in health concerns rather than lead them to develop epicurean pleasure, in order to regulate their consumption. Conversely, the promotion of wine through textual cues highlighting the health benefits of wine should be limited in favor of those cues promoting epicurean pleasure.

2 | THEORETICAL BACKGROUND

2.1 | Pleasure in wine consumption

There are many reasons why people drink wine and other alcoholic beverages. Motivation is in fact one of the most studied influences on drinking behavior (Cooper et al., 1992; Kuntsche et al., 2005, 2006; Mezquita et al., 2011). Research on drinking motives has focused primarily on coping and social motives (Cooper et al., 1988; Glynn et al., 1983; Parry et al., 1974). Nevertheless, Cooper et al. (1992) have put forward another central motive in alcohol consumption (regarding the beverage category), that is, the enhancement of pleasant physical and emotional experiences. While social motives have been associated with moderate alcohol use, coping mechanisms and pleasure enhancement appear to have a greater impact that can be considered as being more negative (Cooper et al., 1992; Kuntsche et al., 2005). In particular, coping mechanisms were associated with alcohol-related problems, and pleasure enhancement with heavy drinking (Cooper et al., 1992; Kuntsche et al., 2005). The problem is that the enhancement of pleasure has been identified as the most significant motive for wine consumption (Charters & Pettigrew, 2008). However, Charters and Pettigrew (2008) integrated different elements into their definition of pleasure, such as taste and mood

enhancement, as well as more cognitive elements, such as esthetics. If we are to believe the literature on food, mood enhancement and esthetics could have somewhat different impacts on wine consumption (Cornil & Chandon, 2016a). It may therefore be important to dissociate them in the definition of pleasure enhancement.

2.2 | Epicurean eating tendencies

Eating pleasure is usually attributed to the satisfaction of visceral needs and failure of self-control that often leads people to over-consume (Fedoroff et al., 1997; Loewenstein, 1996). Even so, a distinction should be made here between two kinds of pleasure: visceral and epicurean (Cornil & Chandon, 2016a). Visceral eating pleasure is related to food craving and hunger, and can trigger an urge to eat (Fedoroff et al., 1997; Loewenstein, 1996). It is often associated with the regulation of negative emotions (Garg et al., 2007; Macht, 2008), and the consumption of hedonic foods (Baumeister et al., 1993; Lambird & Mann, 2006). In contrast, epicurean pleasure refers to the sensory experience of “gourmet” cuisine, including cultural and symbolic values (Palczak et al., 2020). While visceral pleasure is associated with an increased calorie intake (Cornil & Chandon, 2013; Fedoroff et al., 1997; Garg et al., 2007), epicurean pleasure has often been shown to lead to more mindful decisions (Cornil & Chandon, 2016b). By focusing on the sensory and esthetics aspects of their consumption, people are better able to evaluate their physiological needs and thus consume smaller portions of food (Cornil & Chandon, 2016b; Petit et al., 2017; Petit et al., 2018).

The role of pleasure in the process of self-regulation has been supported by the results of various neuroimaging studies (Hare et al., 2009; Petit, Merunka, et al., 2016; Schmidt et al., 2018). For instance, Petit, Merunka, et al. (2016) demonstrated that imagining the sensory pleasure associated with eating fruits and vegetables is linked to an increase of activity in those brain areas associated with reward value and self-regulation, leading people to make healthier food choices. By contrast, focusing on the health benefits resulted in decreased activity in reward value areas. Thus, in some cases, sensory pleasure can play a more important role in consumer self-regulation than health benefits (see also Ouwehand & Papies, 2010; Papies et al., 2020).

2.3 | Epicurean drinking tendencies & health beliefs

Many philosophers have questioned the possibility of considering the consumption of wine and the consumption of food as esthetic experiences (Kant, 1987; Korsmeyer, 2015; Scruton, 2013; Sibley, 2001; see Charters & Pettigrew, 2005). Nevertheless, wine and food experiences do not meet exactly the same criteria. For some authors, the response to esthetic experience would appear to be cognitive (Scruton, 2013), requiring an effort to concentrate (Townsend, 1997), that might be more difficult for wine than for food, due to the effects of

alcohol on cognitive control (Curtin & Fairchild, 2003). In the case of food, the epicurean and the visceral pleasure can be dissociated (Cornil & Chandon, 2016a). Thus, epicurean pleasure has been shown to engage cognitive brain activities with a positive impact on self-regulation (Hare et al., 2009; Petit, Basso, et al., 2016; Petit, Merunka, et al., 2016; Schmidt et al., 2018). At the opposite extreme, the visceral pleasure did not engage such cognitive processes, and was associated with a preference for larger food portions and a higher body mass index (BMI; Cornil & Chandon, 2016a; Hare et al., 2009; Petit, Basso, et al., 2016; Petit, Merunka, et al., 2016; Schmidt et al., 2018).

If the distinction between visceral and epicurean pleasure makes sense for food, it is not so clear that it also applies in the case of wine. Unlike food, wine is not associated with the satisfaction of a primary need, such as hunger or thirst, and does not constitute one of the brain's natural drives (Hillemecher et al., 2005; Lyvers, 2000). Thus, the positive effects of epicurean pleasure on self-regulation derived from satiety should not apply for wine (Berridge, 2009; Petit, Basso, et al., 2016; Petit, Merunka, et al., 2016). Moreover, wine research has revealed that pleasure tendencies during the consumption of wine integrate both epicurean (esthetic consumption) and visceral elements (taste and mood enhancement), thus making it difficult to distinguish between the two (Charters & Pettigrew, 2005, 2008). Thus, in the case of wine, the epicurean tendencies would not be dissociated from the visceral ones. Epicurean tendencies should therefore not be linked to responsible wine consumption, since the visceral pleasures have been associated with heavier drinking behavior (Cooper et al., 1992; Kuntsche et al., 2005). We therefore postulate that:

H1a. *As for visceral drinking tendencies, there is a strong positive association between epicurean drinking tendencies and the frequency and volume of wine consumed.*

If epicurean pleasure does not lead to responsible wine consumption, other motives can potentially have a more positive impact (Cooper et al., 1992; Kuntsche et al., 2005). Consumers are becoming increasingly concerned about the health effects of what they consume (Saliba & Moran, 2010). Wine, especially red wine, is perceived by some consumers to be a product that offers some moderate health benefits (Snopek et al., 2018; Yoo et al., 2010). According to Saliba and Moran (2010), about one quarter of Australians believe that wine is healthy. This belief has been supported by research demonstrating the health benefits of moderate consumption of red wine (Castaldo et al., 2019; Klatsky, 2009; Ruf, 2003). For example, red wine intake, due to a great variety of polyphenolic compounds (e.g., resveratrol, catechin, epicatechin, quercetin, and anthocyanin) has been related to a reduced risk for coronary heart disease (Castaldo et al., 2019). Saliba and Moran (2010) found that those who believe that drinking wine has health benefits tend to drink wine more regularly but not in a greater amount, which leads us to postulate:

H1b. *There is a strong positive association between health beliefs and frequency of consumption of wine, but not with the amount of wine consumed.*

2.4 | Impaired control

The notion that alcoholism, and over-consumption more generally, is characterized by a loss of self-control was established by Jellinek (1952). Jellinek (1952) defined the loss of control in wine consumption as a “chain reaction which is felt by the drinker as a physical demand for alcohol” (p. 679). In this situation, the drinker appears unable to stop themselves from drinking once they have started (Lyvers, 2000). Jellinek (1952) attributed this loss of control while drinking to the pharmacological actions of alcohol on the nervous system. However, more recently, other authors have pointed out that this impaired self-control during the consumption of alcohol could also be linked to “pleasure-seeking” (Arulkadacham et al., 2017; Hobbs et al., 2005; Ostafin et al., 2010). The reward mechanism includes two neurobiological systems for wanting and liking (Berridge & Robinson, 2016). Wanting relates to the expected pleasure associated with approaching and obtaining a stimulus, while liking is the affective response to that stimulus. According to the Incentive-Sensitization Theory, the sensitization of the wanting system is responsible for compulsive behavior (e.g., drug taking, eating, drinking), and such sensitization can occur in the absence of parallel effects in the liking system (Berridge & Robinson, 2016; Hobbs et al., 2005). Several studies have shown that the overconsumption of alcohol is associated with greater wanting (i.e., pleasure-seeking) but not necessarily with greater liking (i.e., experienced pleasure; Arulkadacham et al., 2017; Hobbs et al., 2005; Ostafin et al., 2010). People who overconsumed generally present greater activation in gustatory and somatosensory regions in response to expected pleasure, and weaker activation in reward value areas during experienced pleasure (Stice et al., 2008). Thus, the combination of greater-than-normal expected pleasure and less-than-normal experienced pleasure is the source of the impaired control and the overconsumption (Berridge & Robinson, 2016; Stice et al., 2008). Since epicurean tendencies and visceral tendencies are “pleasure-seeking” motives, both should be connected to the wanting system (Berridge & Robinson, 2016; Charters & Pettigrew, 2005; Cornil & Chandon, 2016a). Therefore, those who reported higher pleasure-seeking tendencies, whether visceral or epicurean, may be more likely to experience impaired control followed by overconsumption. Therefore:

H2a. *Similar to visceral drinking pleasure tendencies, epicurean drinking tendencies increase impaired control, which subsequently increases wine consumption (frequency and quantity).*

In contrast to pleasure-seeking, several studies have demonstrated that the pursuit of health benefits is associated with increased activity in those brain areas that are associated with self-control, thus leading to more regulated consumption (Hare et al., 2009; Petit, Basso, et al., 2016; Petit, Merunka, et al., 2016; Saliba & Moran, 2010). We therefore postulate for health beliefs that:

H2b. *Health beliefs decrease impaired control, which subsequently decreases wine consumption (quantity).*

2.5 | Health versus epicurean halo

While perceiving wine to be a healthy product can lead to more regulated consumption (Saliba & Moran, 2010), promoting the healthy aspect of wine may not be expected to have such a positive effect (Chandon & Wansink, 2007; Sörqvist et al., 2013; Sundar & Kardes, 2015). For instance, many studies have shown that extrinsic food cues, which can be embedded within ads or via other physical elements linked to consumptions such as packaging and labels, can change the consumer's perception of food products (Lee et al., 2013; Skaczkowski et al., 2016; Sörqvist et al., 2013; Stigler & Becker, 1977; Velasco & Spence, 2019, in the case of this research, we are looking at cueing in ads). This perceptual bias is called the “halo effect” and describes the fact that one salient attribute of an object affects the perception of other attributes (Thorndike, 1920). For example, labels such as “organic” and “natural” are given meaning by producers and verifiers based on the consequences of production for the environment, not because of product qualities or consequences for human health (Eden, 2011). Nevertheless, consumers indicate that they are motivated to buy organic or natural products in particular for their expected health effects (Eden, 2011; Migliore et al., 2020). In fact, using health cues, such as organic and natural labels, on food packaging has been shown to increase the perceived healthiness of the product, even if the packaged products are no healthier (Ellison et al., 2016). This health halo effect reduces the perceived calorie content (Schuldt & Schwarz, 2010), and leads to more positive nutritional evaluations (Lee et al., 2013), which has negative consequences on consumption (Chandon & Wansink, 2007; Sörqvist et al., 2013; Sundar & Kardes, 2015). For example, Chandon and Wansink (2007) highlighted how using health cues makes people underestimate the caloric content, leading them to choose higher-calorie foods when fast-food restaurants (e.g., Subway) claim to be healthy as compared to when they do not (e.g., McDonald's).

In the field of wine, some studies have also highlighted this health halo effect for organic and natural labels (Apaolaza et al., 2017; Migliore et al., 2020; Wiedmann et al., 2014). For many consumers, organic viticulture is synonymous with a product that is healthy, safe, and environmentally-friendly (Wiedmann et al., 2014). The latter researchers demonstrated that adding an organic label to a wine bottle increased expected quality perception, expected liking, as well as willingness to pay among regular consumers. Similarly, Migliore et al. (2020) found that consumers are willing to pay more for natural wine due to their attitude toward healthy eating and the environment. Thus, research on wine suggests that the health halo effect occurs for wine in a similar manner as for food. It can therefore be assumed that just as for the case of food, the health halo effect might also lead to increased wine consumption.

Conversely, the promotion of the pleasure associated with drinking wine (epicurean and visceral pleasure) could have the same effect of hedonic food cues (Chandon & Wansink, 2007; Fishbach et al., 2003; Wertenbroch, 1998). In some research, hedonic foods have been shown to prime people to follow healthy goals, and lead individuals to pay more attention to how much they eat (Chandon &

Wansink, 2007; Fishbach et al., 2003). Wertenbroch (1998) reported that in the presence of vice (unhealthy) foods compared to virtuous (healthy) foods, people tend to engage more self-control in order to regulate their purchase quantity. Similarly, exposing consumers to cues that emphasize the hedonic (epicurean and visceral) rather than healthy character of wine might prime people to pay attention to how much they drink (Chandon & Wansink, 2007; Fishbach et al., 2003). They might thus engage more self-control in order to regulate their consumption (Wertenbroch, 1998). Conversely, the presence of health cues, leading to a more positive evaluation of the product (Apaolaza et al., 2017; Migliore et al., 2020; Wiedmann et al., 2014), should result in impaired control, and bring people to expect that they would consume more. Therefore, we postulate:

H3. *Health cues leads to higher expected wine consumption than epicurean and visceral cues.*

H4. *Impaired control mediates the effect of cueing on expected wine consumption. Epicurean and visceral marketing cues increase self-control, thus leading to reduced expected quantity of consumption.*

3 | STUDY 1

3.1 | Stimuli and procedure

In this study, we examined the strength of the associations between epicurean drinking tendencies, visceral drinking tendencies, and health beliefs, with the frequency and amount consumed among French participants recruited on an online platform. We also explored the role of BMI and demographic differences in gender, age, education, and income.

A total of 295 French participants (141 females, $M_{\text{age}} = 28.69$ years, $SD = 9.35$) were recruited through Prolific (a crowdsourcing academic platform to recruit participants for online research) to complete an online questionnaire about their wine consumption (whether the wine is red, white, or rosé). In terms of sensitivity, a power calculation with an alpha of 0.05 and 80% power revealed that a sample of 194 was needed to determine whether a correlation coefficient differs from zero. We used convenience (first come, first serve basis) sampling in Prolific, in order to get a random selection of participants in a predefined group of French people, between 18 and 60 years of age, who indicated that they purchase/drink wine on a regular basis (1235 individuals). We randomized the order in which the items of each scale were presented and had the participants complete the following scales in the following order. We used similar scales with previous research to make it easier to relate our findings to this research. We started with an adaptation of the 7-item epicurean eating pleasure tendencies scale (by changing mentions of “food” to “wine” and removing one item that was not relevant for wine: “Cooking is a major form of art, similar to music or painting”) (Cornil & Chandon, 2016a). This is the only scale to

measure epicurean eating pleasure tendencies. It was also relevant to use this scale to make a comparison with the results from Cornil and Chandon (2016a) for food. We therefore produced a 6-item epicurean drinking pleasure tendencies scale ($\alpha = .89$, see Appendix). We then administered the 5-item Enhancement Motives Scale ($\alpha = .88$, Cooper et al., 1992), as a measure of visceral drinking pleasure tendencies. The Cooper's drinking motive questionnaire is the first to consider pleasure enhancement as a key motive of drinking (Cox & Klinger, 1988; Kuntsche et al., 2005; Moran & Saliba, 2012). This questionnaire has been used in several studies on the consumption of alcohol and wine (Cox & Klinger, 1988; Kuntsche et al., 2005; Moran & Saliba, 2012), in particular by Moran and Saliba (2012), who made a comparison with health beliefs, which is of interest in our study. In order to measure people's health beliefs, we used the 15-item Perceived Healthiness in Wine Scale developed by Saliba and Moran (2010), $\alpha = .83$; and subsequently by Moran and Saliba (2012). Next, we asked the participants about their frequency of wine consumption (from 1 = 2–3 times a year; to 7 = everyday), and their usual quantity of wine consumed per drinking occasion (from 1 = 1 glass; to 7 = 7 or more glasses) in order to evaluate wine consumption. Finally, we asked the participants to indicate their age, gender, income, highest diploma, and weight and height (in order to compute their BMI).

3.2 | Results and discussion

In order to test H1a and H1b, related to the strength of any association between visceral drinking tendencies, epicurean drinking tendencies, health beliefs, frequency, and quantity of wine consumed, we used Pearson's Correlations. We used correlations to be able to draw conclusions in comparison with the results obtained by Cornil and Chandon (2016a) for food. We found that epicurean drinking tendencies were significantly and positively associated with age (Pearson's $r = .29$, $p < .001$), income (Pearson's $r = .20$, $p < .001$), education (Pearson's $r = .17$, $p = .01$), and BMI (Pearson's $r = .11$, $p = .04$). Epicurean drinking tendencies were not associated with gender ($p = .21$). Visceral drinking tendencies were equally distributed across the demographic variables, and only associated with gender, with women scoring higher than men (Pearson's $r = .14$, $p = .02$). Health beliefs were positively associated with age (Pearson's $r = .15$, $p = .03$). Table 1 provides demographic data about the sample of respondents and shows how demographic variables relate to the key constructs assessed by the study.

A positive correlation between epicurean and visceral drinking pleasure tendencies was documented (Pearson's $r = .60$, $p < .001$). However, a positive correlation was also found between epicurean drinking pleasure tendencies and health beliefs (Pearson's $r = .43$, $p < .001$), as well as between visceral drinking pleasure tendencies and health beliefs (Pearson's $r = .38$, $p < .001$). Correlations used to determine whether pairwise variables were correlated while controlling for others revealed that the results were still significant. Epicurean drinking tendencies and visceral drinking tendencies were also both

TABLE 1 Descriptive statistics and association with key constructs

	N	Epicurean drinking	Visceral drinking	Perceived health
Full sample	295	3.81 ± 1.35	3.82 ± 1.46	3.99 ± 1.29
Sex				
Men	154	3.90 ± 1.28	4.02 ± 1.35	4.03 ± 1.33
Women	141	3.70 ± 1.42	3.61 ± 1.46	3.95 ± 1.24
<i>p</i>		.21	.02	.56
Household income				
<30,000€	169	3.53 ± 1.34	3.68 ± 1.51	3.87 ± 1.32
30,000€–60,000€	99	4.22 ± 1.30	4.06 ± 1.35	4.22 ± 1.22
>60,000€	27	4.05 ± 1.27	3.88 ± 1.46	3.94 ± 1.21
<i>p</i>		<.001	.12	.08
Education				
No college degree	42	3.31 ± 1.38	3.80 ± 1.65	3.83 ± 1.11
Some college	114	3.75 ± 1.36	3.72 ± 1.46	4.11 ± 1.27
College or higher	139	4.00 ± 1.31	3.92 ± 1.40	3.94 ± 1.35
<i>p</i>		.01	.57	.42
Age (years)				
<25	144	3.46 ± 1.33	3.70 ± 1.60	3.81 ± 1.25
26–35	92	3.89 ± 1.28	3.84 ± 1.40	4.00 ± 1.37
36–49	40	4.79 ± 1.17	4.33 ± 1.07	4.44 ± 1.31
>50	16	4.08 ± 1.12	3.56 ± 1.20	4.34 ± .67
<i>p-value</i>		<i>p</i> <.001	<i>p</i> =.10	<i>p</i> =.03
Body mass				
Underweight	46	3.37 ± 1.36	3.53 ± 1.55	3.92 ± 1.12
Normal weight	201	3.89 ± 1.35	3.91 ± 1.46	4.01 ± 1.34
Overweight	42	3.74 ± 1.31	3.63 ± 1.27	3.82 ± 1.23
Obese	6	4.69 ± .89	4.40 ± 1.84	5.10 ± .42
<i>p-value</i>		<i>p</i> =.04	.22	<i>p</i> =.15

TABLE 2 Correlation between latent constructs and *p*-values in Study 1

	Epicurean drinking		Visceral drinking		Perceived health		Frequency	
	<i>r</i>	<i>p-value</i>	<i>r</i>	<i>p-value</i>	<i>r</i>	<i>p-value</i>	<i>r</i>	<i>p-value</i>
Visceral drinking	.60	<i>p</i> <.001						
Perceived health	.43	<i>p</i> <.001	.38	<i>p</i> <.001				
Frequency	.61	<i>p</i> <.001	.58	<i>p</i> <.001	.34	<.001		
Quantity	.27	<i>p</i> <.001	.47	<i>p</i> <.001	.06	<i>p</i> =.30	.32	<i>p</i> <.001

positively correlated with consumption frequency (epicurean: Pearson's $r = .61$, $p < .001$, visceral: Pearson's $r = .58$, $p < .001$), and wine quantity (epicurean: Pearson's $r = .27$, $p < .001$, visceral: Pearson's $r = .47$, $p < .001$) supporting H1a, while people's health beliefs were positively correlated with their consumption frequency (Pearson's $r = .34$, $p < .001$), but not with wine quantity ($p = .30$), partially supporting H1b. Pearson's correlations revealed that health beliefs and consumption frequency were no longer correlated when controlling for other motives, supporting H1b. However, Pearson's correlations also revealed that epicurean drinking tendencies and wine quantity were no longer correlated when controlling for others drinking

tendencies, and health beliefs were negatively correlated with wine quantity under this condition (Pearson's $r = -.14$, $p = .01$). Table 2 provides the correlations between the five latent constructs and the *p*-values.

Additional analyses were conducted in order to better understand the effects of visceral drinking tendencies, epicurean drinking tendencies, and health beliefs on wine consumption. We conducted a linear regression with consumption frequency as the dependent variable, and visceral and epicurean drinking tendencies, and health beliefs as the independent variables. The effects of visceral drinking tendencies ($\beta = .32$, $t[291] = 5.85$, $p < .001$), and epicurean drinking tendencies

($\beta = .40$, $t[291] = 6.95$, $p < .001$) were significant. The effects of health beliefs were not significant ($p = .31$). Similar analyses were conducted on the amount consumed. The effects of visceral drinking tendencies ($\beta = .50$, $t[291] = 7.65$, $p < .001$), and health beliefs ($\beta = -.14$, $t[291] = -2.47$, $p = .01$) were significant, while the effects of epicurean drinking tendencies were not ($p = .56$).

The results of Study 1 therefore demonstrate that epicurean drinking tendencies and visceral drinking tendencies are strongly correlated. These two drinking pleasure tendencies also exhibited a correlation with people's health beliefs, and all three were associated with a higher frequency of consumption, supporting H1a. These results contrast with those of Cornil and Chandon (2016a), who found that unlike visceral eating pleasure tendencies, epicurean eating tendencies were associated with a preference for smaller quantities of food. Our results also highlight the fact that health beliefs are not associated with increased wine consumption, unlike epicurean drinking tendencies and visceral drinking tendencies, which goes in the direction of H1b, in line with Saliba and Moran (2010). It should, however, be noted that while our results clearly demonstrate a positive effect of both visceral and epicurean drinking tendencies on the frequency of consumption, only the former had a positive effect on quantity, while we also expected a positive effect of epicurean drinking tendencies. We also observed a negative impact of health beliefs on the quantity consumed, which was not demonstrated by Saliba and Moran (2010), highlighting an additional interest of health beliefs for the regulation of wine consumption.

4 | STUDY 2

4.1 | Stimuli and procedure

In order to replicate and extend Study 1, we conducted a second study, this time recruiting participants from several different European countries. Pictures of red wines including a textual cue (epicurean vs. visceral vs. healthy) promoting wine consumption were also integrated in the study. Impaired control was integrated as a mediator. The goal was to analyze the role of cueing on the expected consumption of red wine. In the case of this research, we were looking more specifically at cueing in ads, with a focus on those words indicating different consumption motives, rather than any other types of cues.

A total of 309 participants from different European countries (Austria: 4, Belgium: 16, Bulgaria: 2, France: 55, Denmark: 15, Finland: 6, Germany: 18, Greece: 17, Ireland: 8, Italy: 25, Luxembourg: 2, Netherlands: 14, Poland: 51, Portugal: 37, Romania: 1, Spain: 32, Sweden: 6; 162 females, $M_{\text{age}} = 30.47$ years, $SD = 10.71$) were randomly recruited via Prolific to complete an online questionnaire to assess their red wine consumption. In terms of sensitivity, a power calculation with an alpha of 0.05 and 80% power revealed that we needed a sample of 189 to compare the mean between our conditions. Similar to Study 1, we used convenience sampling, in order to get a random selection of participants from different European countries. We selected people between 18 and 60 years of age, who indicated that

they purchased/drank red wine on a regular basis, and who had not taken part in the previous study. Our study followed a 3 (cues: epicurean, visceral, healthy) between-participants design. A picture including a bottle and a glass of red wine, as well as a textual cue promoting wine consumption was presented to the participants. The image of the bottle and the glass of red wine did not change between the three conditions, only the textual cue varied. The textual cue promoted flavored red wine (for the epicurean version), excitement (for the visceral version), and naturalness (for the healthy version) (see Figure S1). We chose to highlight the flavor for the epicurean version because of the importance of the sensory dimension in epicurean pleasure (Cornil & Chandon, 2016a). We focused on excitement for the visceral pleasure, which is an important element of the enhancement motives scale (Cooper et al., 1992). Finally, we promoted naturalness in the healthy version as natural wines are generally considered to be healthier than other wines by consumers (Migliore et al., 2020).

Similar to the first study, we randomized the order in which the items of each scale were presented. We first asked the participants how often they would like to drink the red wine (from 1 = 2–3 times by year; to 7 = every day), and how many glasses of this red wine they would like to drink (from 1 = 1; to 7 = 7 or more glasses) on different meal occasions (with friends, family, business, and romantic). We chose to assess wine consumption for different meal occasions because social context has been shown to affect perceived norms of what is socially appropriate to drink (Beck & Treiman, 1996; Thombs et al., 1997). As participants can spontaneously imagine different social contexts when answering about the number of glasses they would like to drink, we preferred to control this aspect of the study. Then, we asked participants to complete the epicurean drinking pleasure tendencies scale ($\alpha = .88$), the enhancement motives scale ($\alpha = .84$, Cooper et al., 1992), and the perceived healthiness of wine scale ($\alpha = .72$; Saliba & Moran, 2010). For impaired control, we used the five positive items (i.e., items related to a diminution of the perceived control of Heather et al. (1993), $\alpha = .83$). We finished the questionnaire with the demographic questions, and asked participants about the naturalness, the flavor, and the exciting look of the red wine on 7-points Likert scales (from 1: strongly disagree; to 7: strongly agree).

4.2 | Manipulation check

We first controlled that the red wine in the natural cue condition ($M_{\text{natural}} = 4.97$, $SD = 1.24$, $F[1, 306] = 14.04$, $p < .001$, $\eta^2 = .08$) was perceived to be more natural than the red wine in the flavored cue condition ($M_{\text{flavored}} = 3.95$, $SD = 1.63$, $p < .001$ with Bonferroni correction), and in the exciting cue condition ($M_{\text{exciting}} = 4.21$, $SD = 1.40$; $p = .001$, with Bonferroni correction). The red wine in the flavor cue condition was as expected more flavored ($M_{\text{flavored}} = 4.98$, $SD = 1.37$, $F[1, 306] = 7.13$, $p = .001$, $\eta^2 = .04$) than the red wine in the exciting cue condition ($M_{\text{exciting}} = 4.26$, $SD = 1.43$, $p = .008$, with Bonferroni correction), but as flavored as the red wine in the natural cue condition ($M_{\text{natural}} = 4.56$, $SD = 1.31$, $p = .08$, with Bonferroni correction).

TABLE 3 Study 2: Correlation between latent constructs and *p*-values

	Epicurean		Visceral		Health		Frequency		Friend		Family		Business	
	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value	<i>r</i>	<i>p</i> -value
Visceral	.21	<i>p</i> <.001												
Health	.20	<i>p</i> <.001	.13	.02										
Frequency	.23	<i>p</i> <.001	.25	<.001	.22	<i>p</i> <.001								
Friend	.15	<i>p</i> =.01	.31	<.001	.08	<i>p</i> =.16	.35	<i>p</i> <.001						
Family	.13	<i>p</i> =.02	.16	.01	.05	<i>p</i> =.43	.21	<i>p</i> <.001	.55	<i>p</i> <.001				
Business	.07	<i>p</i> =.19	.35	<.001	.09	<i>p</i> =.10	.15	<i>p</i> =.01	.42	<i>p</i> <.001	.58	<i>p</i> <.001		
Romantic	.16	<i>p</i> =.01	.34	<.001	.05	<i>p</i> =.43	.36	<i>p</i> <.001	.60	<i>p</i> <.001	.45	<i>p</i> <.001	.44	<i>p</i> <.001

There was no difference in how exiting red wines were perceived to be as a function of the textual cue. Thus, our messages would appear to stand out only in terms of the naturalness for the red wine cued as natural over the other two, and on the flavor for the red wine cued as flavored and as natural over the red wine cued as exciting.

We also controlled that there were no differences in the epicurean drinking tendencies, the visceral drinking tendencies, and the health beliefs of those individuals who had been randomly allocated to one of the three conditions.

4.3 | Results and discussion

4.3.1 | Self-perception

Similar to Study 1, a positive correlation was found between epicurean and visceral drinking tendencies (Pearson's $r = .21$, $p < .001$), as well as between epicurean drinking tendencies and health beliefs (Pearson's $r = .20$, $p < .001$), and between visceral drinking tendencies and people's health beliefs (Pearson's $r = .13$, $p = .02$). Pearson's correlations revealed that health beliefs and visceral drinking tendencies were no longer correlated when controlling for epicurean drinking tendencies. Epicurean drinking tendencies and visceral drinking tendencies were also both positively correlated with expected frequency (Pearson's $r_{\text{Epicurean}} = .23$, $p < .001$; Pearson's $r_{\text{Visceral}} = .25$, $p < .001$), and the expected quantity that is consumed during a meal with friends (Pearson's $r_{\text{Epicurean}} = .15$, $p = .01$; Pearson's $r_{\text{Visceral}} = .31$, $p < .001$), with family (Pearson's $r_{\text{Epicurean}} = .13$, $p = .02$; Pearson's $r_{\text{Visceral}} = .16$, $p = .01$), a romantic partner (Pearson's $r_{\text{Epicurean}} = .16$, $p = .01$; Pearson's $r_{\text{Visceral}} = .34$, $p < .001$), supporting H1a. However, Pearson's correlations revealed that epicurean drinking tendencies were no longer correlated with the expected quantity consumed for a meal with friends ($p = .22$), with family ($p = .11$), and romantic partner ($p = .15$), when controlling for other motives. Only visceral drinking tendencies were positively correlated with the quantity of red wine consumed for a business meal (Pearson's $r = .35$, $p < .001$). Health beliefs were only positively correlated with consumption frequency (Pearson's $r = .22$, $p < .001$), partially supporting H1b. Table 3 provides the correlations between the latent constructs and the *p*-values.

Thus, the results of the first study are confirmed on a convenience sample of people from different European countries and on the expected consumption exposed to a cueing message.

We used Model 4 in PROCESS v3.1 with a bootstrap analysis (with 5000 samples) to examine separately whether epicurean tendencies, visceral tendencies, and health beliefs had any effects on expected consumption, and if these effects were mediated by impaired control. We found a positive indirect effect of epicurean tendencies, through the increase of impaired control on frequency (indirect effect = .07, 95% CI [.01;.13] excluding zero), on red wine quantity during a meal with friends (indirect effect = .05, 95% CI [.01;.10] excluding zero), family (indirect effect = .03, 95% CI [.01;.07] excluding zero), business (indirect effect = .03, 95% CI [.01;.06] excluding zero), and romantic (indirect effect = .04, 95% CI [.01;.08] excluding zero), supporting H2a. Similarly, we found a positive indirect effect of visceral tendencies, through the increase of impaired control, on frequency (indirect effect = .04, 95% CI [.01;.09] excluding zero), on red wine quantity during a meal with friend (indirect effect = .07, 95% CI [.03;.13] excluding zero), family (indirect effect = .07, 95% CI [.03;.11] excluding zero), business (indirect effect = .06, 95% CI [.02;.10] excluding zero), and romantic (indirect effect = .05, 95% CI [.01;.11] excluding zero), supporting H2a. The participants' health beliefs did not have an indirect effect on frequency through impaired control (indirect effect = .02, 95% CI [−.02;.07] including zero), thus not supporting H2b.

4.3.2 | Verbal cues

One-way ANOVAs were conducted in order to compare the effects on our three cueing conditions (natural, flavored, visceral) on the expected frequency and expected quantity of red wine consumed for different occasions (see Figure 1). A main effect of condition on frequency was observed ($F[2, 306] = 3.71$, $p = .03$, $\eta_p^2 = .02$). Specifically, the participants indicated that they wanted to consume red wine more often in the natural condition ($M = 3.03$, $SD = 1.59$) than in the exciting condition ($M = 2.46$, $SD = 1.65$, $p = .04$, with Bonferroni corrections), supporting H3. The other comparisons were not significant. In terms of consumption quantity, we found a main effect of

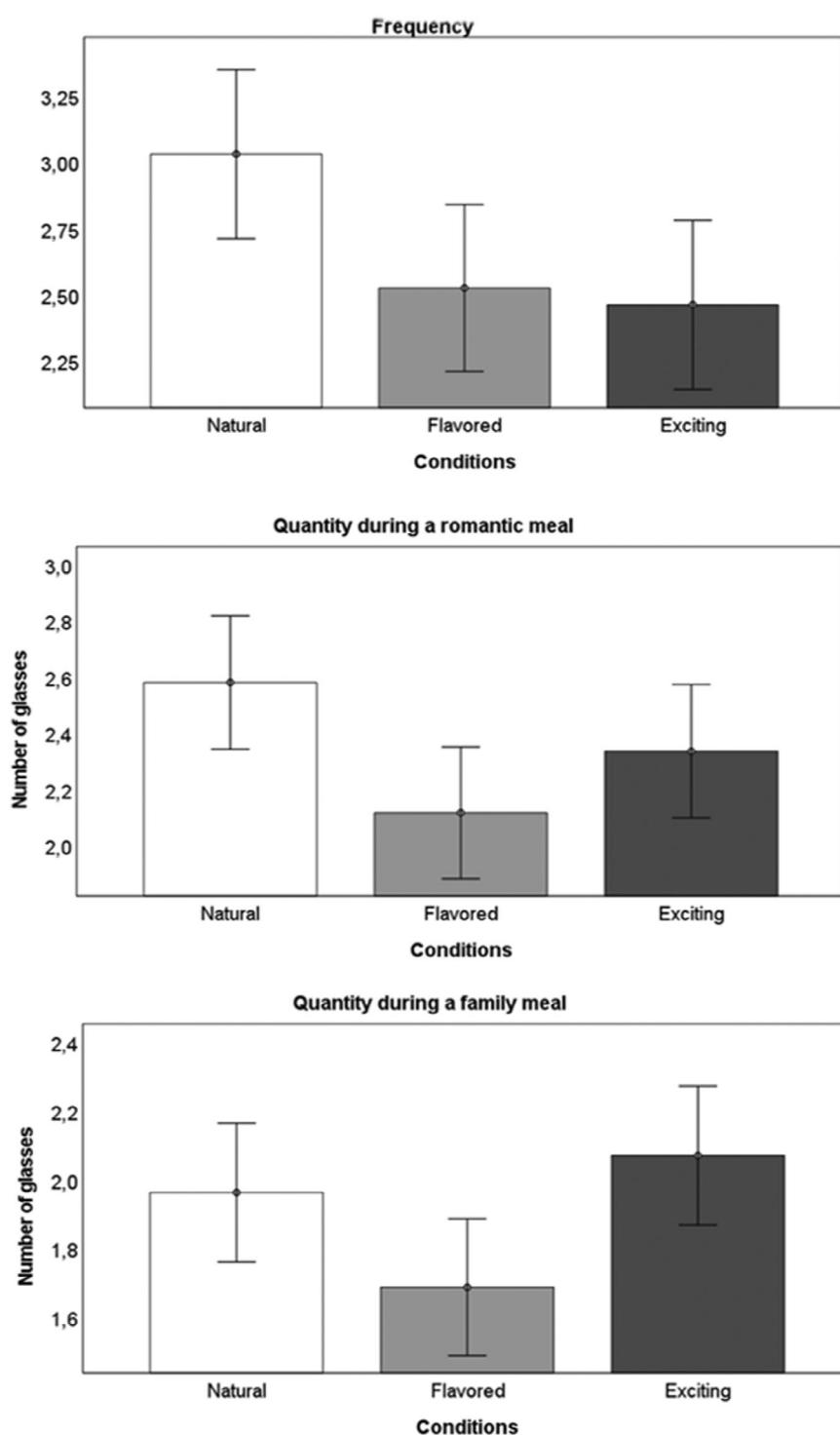


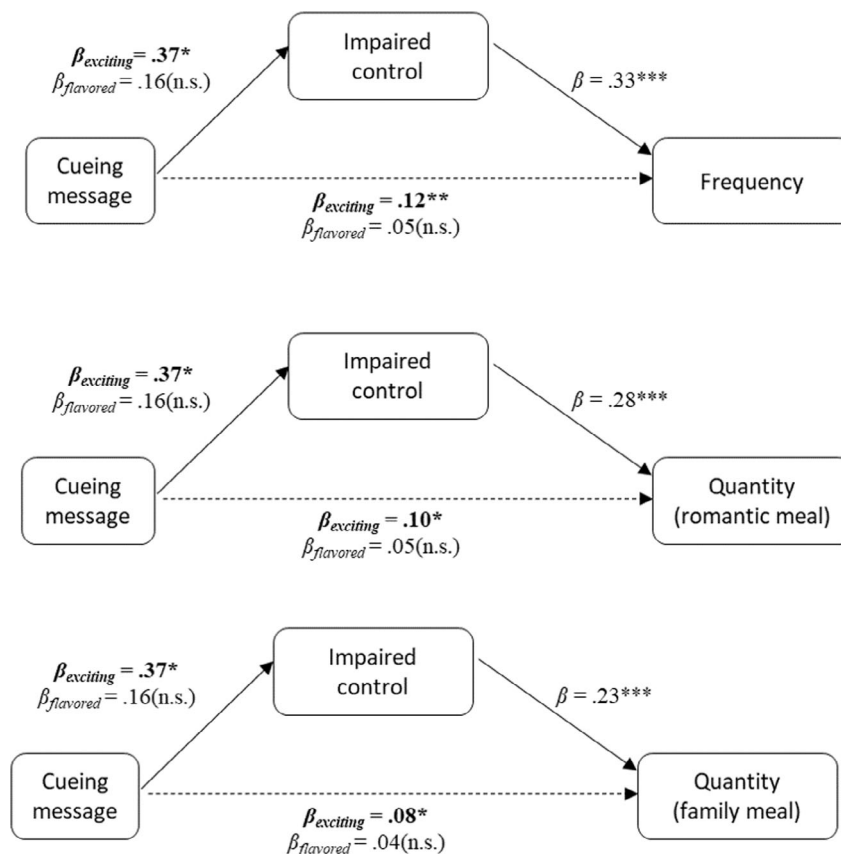
FIGURE 1 Study 2 means: (a) frequency; (b) quantity during a family meal; (c) quantity during a romantic meal (y axis), depending on the cueing message promoting the wine (x axis). Error bars represent standard errors

condition on quantity for a family meal ($F[2, 306] = 3.77, p = .02, \eta_p^2 = .02$). Specifically, the participants indicated that they wanted to consume more red wine during a family meal in the exciting condition ($M = 2.07, SD = 1.28$) than in the flavored condition ($M = 1.69, SD = .87, p = .04$ with Bonferroni corrections). The other comparisons were not significant. We also found a main effect of condition on quantity for the romantic meal occasion ($F[2, 306] = 3.74, p = .03, \eta_p^2 = .02$). Specifically, the participants indicated that they wanted to

consume more red wine during a romantic meal in the natural condition ($M = 2.58, SD = 1.35$) than in the flavored condition ($M = 2.11, SD = 1.14, p = .02$, with Bonferroni corrections), supporting H3. The other comparisons were not significant. No differences were observed for the amount of red wine consumed during a meal with friends and during a business meal.

We used Model 4 in PROCESS v3.1 with a bootstrap analysis (with 5000 samples) to examine whether the effects of cueing (natural = 0,

FIGURE 2 The mediating role of impaired control in the effect of cueing messages (exciting and flavored as compared to natural) on the frequency of consumption and quantity consumed in Study 2. n.s.: $p > .10$; * $p < .05$; ** $p < .01$; *** $p < .001$



flavored = 1, exciting = 2) on frequency and quantity were mediated by impaired control (see Figure 2). The exciting cue ($\beta = .37$, $t = 2.34$, $p = .02$) had a positive effect on impaired control compared to the natural one failing to support H4. The effect of the flavored condition compared to the natural condition was not significant ($p = .30$). Impaired control ($\beta = .33$, $t = 4.03$, $p < .001$) had a significant positive direct effect on the expected frequency of red wine consumption, partially supporting H4. The indirect effect of the exciting condition through impaired control was also significant (indirect effect = .12, 95% CI [.02; .26] excluding zero), but not those of the flavored condition (indirect effect = .05, 95% CI [−.04; .15] including zero). Similarly, for the expected quantity of red wine drunk during a romantic meal, impaired control ($\beta = .28$, $t = 4.69$, $p < .001$) had a significant positive effect on expected quantity, partially supporting H4. The indirect effect of exciting condition was also significant (indirect effect = .10, 95% CI [.02; .22] excluding zero), but not those of the flavored condition (indirect effect = .05, 95% CI [−.04; .14] including zero). For the expected quantity of red wine drunk during a family meal, impaired control had a significant positive effect on expected quantity ($\beta = .23$, $t = 4.38$, $p < .001$), partially supporting H4. The indirect effect of the exciting condition was significant (indirect effect = .08, 95% CI [.01; .17] excluding zero), but that of the flavored condition was not (indirect effect = .04, 95% CI [−.03; .11] including zero).

5 | GENERAL DISCUSSION

5.1 | Summary

In order to analyze the effects of epicurean pleasure, in relation to visceral pleasure and health beliefs, on (1) frequency and volume of wine consumed, and (2) expected consumption following the presentation of a cueing message, two studies were conducted. The results of Study 1 highlight that epicurean drinking tendencies and visceral drinking tendencies are associated with a greater frequency and quantity of wine consumed. Health beliefs about wine consumption are also associated with a higher perceived frequency of wine consumption but not with a greater volume. Study 2 confirms and extends these findings. Similar to the results of Study 1, epicurean drinking tendencies, visceral drinking tendencies, and health beliefs were positively correlated with the frequency of expected consumption. Epicurean and visceral drinking tendencies are also associated with larger expected volumes of red wine consumed for all of the occasions identified (friends, family, business, romantic). The associations with health beliefs are not significant. The results also highlight a positive mediating effect of impaired control on the expected frequency and expected quantity of red wine consumed in people with epicurean and visceral drinking tendencies.

Study 2 was also designed to analyze the effects of cueing messages promoting visceral pleasure, epicurean pleasure, and health beliefs on expected frequency and volume of red wine consumed. The results show that promoting the natural dimension of red wine (health cue) leads people to want to consume it more frequently than when the red wine is promoted with a visceral cue (based on excitement). Using a health cue compared to an epicurean one (flavor) enhances the willingness to drink red wine during a romantic meal. Nevertheless, the participants also indicated that they would consume more of an 'exciting' red wine for a family meal. We also found a positive mediating effect of impaired control on expected frequency and volume (romantic meal and a family meal) in the exciting condition as compared to the natural condition.

5.2 | Theoretical implications

First, we demonstrate that, unlike the epicurean eating pleasure tendencies that were negatively associated with supersizing preference (which do not really exist in wine as the majority of sales are of 750 ml volume bottles, limiting the comparison, Cornil & Chandon, 2016a), epicurean drinking pleasure tendencies are associated with a greater frequency and quantity of wine consumed. To the best of our knowledge, this research is the first to demonstrate that the epicurean pleasure linked to wine is different from the epicurean pleasure that is linked to food, and more importantly, that it does not lead to more regulated wine consumption. Our research also reveals that epicurean drinking tendencies and visceral drinking tendencies are strongly correlated. These results thus lead to a questioning of the possibility of having a purely esthetic wine consumption experience, if the latter is considered as essentially cognitive (Charters & Pettigrew, 2005; Scruton, 2013; Townsend, 1997). Our research also provides a better understanding of the role of health beliefs on wine consumption. Saliba and Moran (2010) found that such health beliefs are associated with more regular consumption of wine but not to a greater volume consumed. The research reported here extends these results by highlighting that health beliefs have no impact on consumption frequency compared to visceral and epicurean tendencies. In addition, they can even lead to reduce the amount of wine consumed.

Second, our results demonstrate that the effects of epicurean, visceral drinking tendencies, and health beliefs on expected wine consumption are not observed when these motives are cued in messages. While health beliefs were not associated with a greater expected consumption of wine, using a health cue to promote red wine led people to want to consume more. Previous studies had already shown a health halo effect on the sensory and hedonic experience of wine (Apalaza et al., 2017). When labeled organic, the wine was perceived as having a more intense, pleasurable, and fruity flavor, than in the control condition. Our results extend this research by showing that this health halo effect also applies to frequency and quantity expected to be consumed. The health halo leads individuals to view the products as healthier than they actually are (Ellison et al., 2016; Lee et al., 2013; Schuldt & Schwarz, 2010), which, in turn, generally leads

people to overconsume (Chandon & Wansink, 2007; Sörqvist et al., 2013; Sundar & Kardes, 2015). Our results also reveal different effects of cueing on expected consumption depending on the context (friends, family, business, romantic). Thus, these contexts seem to modify perceived norms of what is socially appropriate to drink, moderating the cueing effect (Beck & Treiman, 1996; Thombs et al., 1997).

Third, the present results demonstrate the mediating role of impaired control. Impaired control increases in those individuals with epicurean drinking tendencies and visceral drinking tendencies, with a positive effect on frequency and quantity consumed. Thus, our results highlight that people who seek pleasure, whether of the epicurean or visceral kind have weaker control capacities (Arulkadacham et al., 2017; Hobbs et al., 2005; Ostafin et al., 2010). Surprisingly, visceral cues increased the impaired control. We hoped that in the presence of messages highlighting pleasure compared to health messages, individuals would be more alert, and would tend to engage more self-control (Chandon & Wansink, 2007; Wertenbroch, 1998). Instead, impaired control diminished with the health cue while the expected consumption increased. These results could be explained by the fact that health cues would artificially create a feeling of control over consumption, which would lead individuals to be more indulgent (Chandon & Wansink, 2007; Chernev, 2011; Provencher et al., 2009; Wansink & Chandon, 2006).

5.3 | Managerial implications

Our research has several managerial implications for public policy-making and for the wine industry more generally. First, it seems important that public policies should commit to encouraging individuals to take a greater interest in the general healthfulness of wine, since health beliefs appear not to impact the frequency of consumption, and to have a negative effect on the quantity consumed. Conversely, prevention campaigns should be developed against general epicurean drinking pleasure tendencies, such as those carried out on binge drinking (Chung et al., 2018). Our results, indeed, show that epicurean drinking tendencies decrease self-control, causing people to consume more frequently and in greater quantities.

When it comes to immediate advertising cues, our results alert the wine industry and public authorities on the potential negative impact of health wine cues, which may create a health halo effect (Chandon & Wansink, 2007; Sörqvist et al., 2013; Sundar & Kardes, 2015). In our study, those participants exposed to health messaging reported wanting to consume wine more frequently and in larger quantities than when a visceral cue was used. Conversely, using hedonic cues (visceral and epicurean) on the bottle of wine could be used as a means of promoting wine without leading to overconsumption. Our results indeed show that presenting wine with hedonic cues lead to a lower frequency and expected quantity of consumption than presenting the same wine with a health cue.

It should also be stressed that our research highlights different results according to the drinking context. The latter have been shown

to affect what is socially appropriate to drink (Beck & Treiman, 1996; Thombs et al., 1997). Thus, in our research, health cue has no effect on the expected amount of red wine consumed for business meals and meals with friends, but has a positive effect in the case of romantic meals. Some studies have shown that women associate masculinity with the consumption of meat (vs. vegetarian) and alcohol, leading men to overconsume (Kniffin et al., 2016; Timeo & Suitner, 2018). Men could have associated the consumption of a healthy cued wine with a loss of masculinity, and wish to compensate for it by greater consumption. Conversely, women tend to have a healthier consumption in the presence of men (Mori et al., 1987). Thus, during a romantic meal, they would be more sensitive to the health halo effect, considering that they can consume more in this condition. Future research should be conducted to better understand these relations.

5.4 | Limits and research perspectives

Our research is not without limitations. First, we analyzed the effect of epicurean drinking tendencies, visceral drinking tendencies, and health beliefs only on the frequency and quantity reported by the participants. While the opportunities to observe real wine consumption were limited with the pandemic, future studies carried out in restaurants for different types of meals could make it possible to study real behavior, and in particular whether attention to the labels, and more particularly to health claims, is sufficient in these contexts to produce effects on red wine consumption.

Our research was limited to the consumption of wine, and thus it could be of interest if similar effects are observed for other types of alcohol. It could also be interesting to reproduce our study on populations from different markets (e.g., China, United States) who exhibit different patterns of wine consumption (Agnoli & Outreville, 2021), and analyze the potential effects of the COVID-19 pandemic (Plata et al., 2022). It should also be noted that we used convenience samples. Prolific only provide representative samples (i.e., age, sex and ethnicity) for the US and UK. Therefore, further research is needed in order to generalize our results and make conclusions about specific consumer segments in different markets.

In our research, we concentrated on a single verbal cue evoking the core motive. Normally, of course, the consumer has many other cues, such as brand, price, alcohol content, etc., that might bias their choices. We deliberately chose to focus on a single cue in order to disentangle the underlying psychological mechanism. Yet, in appreciation of the complexity of the various contexts in which individuals make choices, it is imperative that future research expands the analysis of the number and types of cues considered, while controlling for their varying salience.

Another important limitation is that not all of our experimental manipulations were validated by the manipulation check. As expected, the wine promoted as natural was perceived to be more natural than those promoted as flavored and exciting. Even so, while the red wine promoted as flavored was perceived to be more flavored than the red wine that was promoted as exciting, the difference was not significant between the red wine promoted as flavorful and that promoted as

natural. Meanwhile, the red wine that was promoted as exciting was perceived as just as exciting as the red wine promoted as natural and the red wine promoted as flavored. These results mostly suggest that the red wine promoted as exciting is both perceived as less flavored and natural than the two other wines but not more exciting, which limits the interpretation of our results. It would be interesting to conduct a new study by further contrasting the presentation of red wine bottles in advertising messages, to ensure that the natural, flavored, and exciting advertising messages are in fact associated with health, epicurean, and visceral cues.

In the present study, we observed that health cues lead to a higher expected frequency and expected quantity of red wine consumed. Even so, they can also play a positive role in the choice of red wine for those individuals who hold health beliefs related to red wine consumption. Further research should be conducted to study how to present these labels without producing a health halo effect, and to compare the effects for different kind of labels (organic, natural, sulfate free, low alcohol...).

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CONFLICT OF INTEREST

The authors declare no potential conflict of interest.

DATA AVAILABILITY STATEMENT

Data available on request from the authors.

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REFERENCES

- Académie du Vin Library. (2021). *Wine statistics*. Académie du vin Library Retrieved May 13, 2021, from <https://academieduvinlibrary.com/wine-statistics/>
- Agnoli, L., & Outreville, J. F. (2021). Wine consumption and culture: A cross-country analysis. *Applied Economic Perspectives and Policy*, 43(3), 1101–1123.
- Apaolaza, V., Hartmann, P., Echebarria, C., & Barrutia, J. M. (2017). Organic label's halo effect on sensory and hedonic experience of wine: A pilot study. *Journal of Sensory Studies*, 32(1), e12243.
- Arif, A. A., & Rohrer, J. E. (2005). Patterns of alcohol drinking and its association with obesity: Data from the Third National Health and Nutrition Examination Survey, 1988–1994. *BMC Public Health*, 5(1), 1–6.
- Arulkadacham, L. J., Richardson, B., Staiger, P. K., Kambouropoulos, N., O'Donnell, R. L., & Ling, M. (2017). Dissociation between wanting and liking for alcohol and caffeine: A test of the Incentive Sensitisation Theory. *Journal of Psychopharmacology*, 31(7), 927–933.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1993). When ego threats lead to self-regulation failure: Negative consequences of high self-esteem. *Journal of Personality and Social Psychology*, 64(1), 141–156.
- Beck, K. H., & Treiman, K. A. (1996). The relationship of social context of drinking, perceived social norms, and parental influence to various drinking patterns of adolescents. *Addictive Behaviors*, 21(5), 633–644.

- Berridge, K. C. (2009). 'Liking' and 'wanting' food rewards: Brain substrates and roles in eating disorders. *Physiology & Behavior*, 97(5), 537–550.
- Berridge, K. C., & Robinson, T. E. (2016). Liking, wanting, and the incentive-sensitization theory of addiction. *American Psychologist*, 71(8), 670–679.
- Castaldo, L., Narváez, A., Izzo, L., Graziani, G., Gaspari, A., Di Minno, G., & Ritieni, A. (2019). Red wine consumption and cardiovascular health. *Molecules*, 24(19), 3626.
- Chandon, P., & Wansink, B. (2007). The biasing health halos of fast-food restaurant health claims: Lower calorie estimates and higher side-dish consumption intentions. *Journal of Consumer Research*, 34(3), 301–314.
- Charters, S., & Pettigrew, S. (2005). Is wine consumption an aesthetic experience? *Journal of Wine Research*, 16(2), 121–136.
- Charters, S., & Pettigrew, S. (2007). The dimensions of wine quality. *Food Quality and Preference*, 18(7), 997–1007.
- Charters, S., & Pettigrew, S. (2008). Why do people drink wine? A consumer-focused exploration. *Journal of Food Products Marketing*, 14(3), 13–32.
- Chernev, A. (2011). The dieter's paradox. *Journal of Consumer Psychology*, 21(2), 178–183.
- Chung, T., Creswell, K. G., Bachrach, R., Clark, D. B., & Martin, C. S. (2018). Adolescent binge drinking: Developmental context and opportunities for prevention. *Alcohol Research: Current Reviews*, 39(1), 5–15.
- Cooper, M. L., Russell, M., & George, W. H. (1988). Coping, expectancies, and alcohol abuse: A test of social learning formulations. *Journal of Abnormal Psychology*, 97(2), 218–230.
- Cooper, M. L., Russell, M., Skinner, J. B., & Windle, M. (1992). Development and validation of a three-dimensional measure of drinking motives. *Psychological Assessment*, 4(2), 123–132.
- Cornil, Y., & Chandon, P. (2013). From fan to fat? Vicarious losing increases unhealthy eating, but self-affirmation is an effective remedy. *Psychological Science*, 24(10), 1936–1946.
- Cornil, Y., & Chandon, P. (2016a). Pleasure as an ally of healthy eating? Contrasting visceral and epicurean eating pleasure and their association with portion size preferences and wellbeing. *Appetite*, 104, 52–59.
- Cornil, Y., & Chandon, P. (2016b). Pleasure as a substitute for size: How multisensory imagery can make people happier with smaller food portions. *Journal of Marketing Research*, 53(5), 847–864.
- Cox, W. M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology*, 97(2), 168–180.
- Curtin, J. J., & Fairchild, B. A. (2003). Alcohol and cognitive control: Implications for regulation of behavior during response conflict. *Journal of Abnormal Psychology*, 112(3), 424.
- Eden, S. (2011). Food labels as boundary objects: How consumers make sense of organic and functional foods. *Public Understanding of Science*, 20(2), 179–194.
- Ellison, B., Duff, B. R., Wang, Z., & White, T. B. (2016). Putting the organic label in context: Examining the interactions between the organic label, product type, and retail outlet. *Food Quality and Preference*, 49, 140–150.
- Fedoroff, I. D., Polivy, J., & Herman, C. P. (1997). The effect of pre-exposure to food cues on the eating behavior of restrained and unrestrained eaters. *Appetite*, 28(1), 33–47.
- Fishbach, A., Friedman, R. S., & Kruglanski, A. W. (2003). Leading us not into temptation: Momentary allurements elicit overriding goal activation. *Journal of Personality and Social Psychology*, 84(2), 296–309.
- Garg, N., Wansink, B., & Inman, J. J. (2007). The influence of incidental affect on consumers' food intake. *Journal of Marketing*, 71(1), 194–206.
- Glynn, R. J., LoCastro, J. S., Hermos, J. A., & Bossé, R. (1983). Social contexts and motives for drinking in men. *Journal of Studies on Alcohol*, 44(6), 1011–1025.
- Goode, J. (2005). *Wine science* (pp. 190–196). Mitchell Beazley.
- Hall, J., Shaw, M., & Doole, I. (1997). Cross-cultural analysis of wine consumption motivations. *International Journal of Wine Marketing*, 9(2), 83–92.
- Hare, T. A., Camerer, C. F., & Rangel, A. (2009). Self-control in decision-making involves modulation of the vmPFC valuation system. *Science*, 324(5927), 646–648.
- Haseeb, S., Alexander, B., & Baranchuk, A. (2017). Wine and cardiovascular health: A comprehensive review. *Circulation*, 136(15), 1434–1448.
- Heather, N., Tebbutt, J. S., Mattick, R. P., & Zamir, R. (1993). Development of a scale for measuring impaired control over alcohol consumption: A preliminary report. *Journal of Studies on Alcohol*, 54(6), 700–709.
- Hillemecher, T., Bayerlein, K., Reulbach, U., Sperling, W., Wilhelm, J., Mugele, B., Kraus, T., Bönsch, D., Kornhuber, J., & Bleich, S. (2005). Influence of beer, wine and spirits consumption on craving. *Addiction Biology*, 10(2), 181–186.
- Hobbs, M., Remington, B., & Glautier, S. (2005). Dissociation of wanting and liking for alcohol in humans: A test of the incentive-sensitisation theory. *Psychopharmacology*, 178(4), 493–499.
- Jackson, R. S. (2014). *Wine science: Principles and applications* (4th ed.). Academic Press.
- Jellinek, E. M. (1952). Phases of alcohol addiction. *Quarterly Journal of Studies on Alcohol*, 13(4), 673–684.
- Kant, I. (1987). *Critique of judgment* (trans. Werner S. Pluhar). Hackett.
- Klatsky, A. L. (2009). Alcohol and cardiovascular diseases. *Expert Review of Cardiovascular Therapy*, 7(5), 499–506.
- Kniffin, K. M., Sigirci, O., & Wansink, B. (2016). Eating heavily: Men eat more in the company of women. *Evolutionary Psychological Science*, 2(1), 38–46.
- Korsmeyer, C. (2015). *Making sense of taste*. Cornell University Press.
- Kuntsche, E., Knibbe, R., Gmel, G., & Engels, R. (2005). Why do young people drink? A review of drinking motives. *Clinical Psychology Review*, 25(7), 841–861.
- Kuntsche, E., Knibbe, R., Gmel, G., & Engels, R. (2006). Who drinks and why? A review of socio-demographic, personality, and contextual issues behind the drinking motives in young people. *Addictive Behaviors*, 31(10), 1844–1857.
- Lambird, K. H., & Mann, T. (2006). When do ego threats lead to self-regulation failure? Negative consequences of defensive high self-esteem. *Personality and Social Psychology Bulletin*, 32(9), 1177–1187.
- Laska, M., Freist, P., & Krause, S. (2007). Which senses play a role in nonhuman primate food selection? A comparison between squirrel monkeys and spider monkeys. *American Journal of Primatology*, 69(3), 282–294.
- Lee, W. C. J., Shimizu, M., Kniffin, K. M., & Wansink, B. (2013). You taste what you see: Do organic labels bias taste perceptions? *Food Quality and Preference*, 29(1), 33–39.
- Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65(3), 272–292.
- Lyvers, M. (2000). "Loss of control" in alcoholism and drug addiction: A neuroscientific interpretation. *Experimental and Clinical Psychopharmacology*, 8(2), 225–249.
- Macht, M. (2008). How emotions affect eating: A five-way model. *Appetite*, 50(1), 1–11.
- Mezquita, L., Stewart, S. H., Ibáñez, M. I., Ruipérez, M. A., Villa, H., Moya, J., & Ortet, G. (2011). Drinking motives in clinical and general populations. *European Addiction Research*, 17(5), 250–261.
- Migliore, G., Thrassou, A., Crescimanno, M., Schifani, G., & Galati, A. (2020). Factors affecting consumer preferences for "natural wine": An exploratory study in the Italian market. *British Food Journal*, 122(8), 2463–2479.
- Moran, C. C., & Saliba, A. J. (2012). Reasons for drinking wine and other beverages—comparison across motives in older adults. *International Journal of Wine Research*, 4, 25–32.
- Mori, D., Chaiken, S., & Pliner, P. (1987). "Eating lightly" and the self-presentation of femininity. *Journal of Personality and Social Psychology*, 53(4), 693–702.

- NCES (2021). Wine consumption worldwide in 2020, by country (in million hectolitres). In *Statista - The statistics portal* Retrieved May 20, 2021, from <https://www.statista.com/statistics/858743/global-wine-consumption-by-country/>
- Ostafin, B. D., Marlatt, G. A., & Troop-Gordon, W. (2010). Testing the incentive-sensitization theory with at-risk drinkers: Wanting, liking, and alcohol consumption. *Psychology of Addictive Behaviors*, 24(1), 157–162.
- Ouweland, C., & Papies, E. K. (2010). Eat it or beat it. The differential effects of food temptations on overweight and normal-weight restrained eaters. *Appetite*, 55(1), 56–60.
- Palczak, J., Blumenthal, D., & Delarue, J. (2020). Influence of sensory complexity on preferences for novel gourmet dairy desserts. Does Berlyne's theory apply to desserts? *Food Quality and Preference*, 84, 103957.
- Papies, E. K., Johannes, N., Daneva, T., Semyte, G., & Kauhanen, L. L. (2020). Using consumption and reward simulations to increase the appeal of plant-based foods. *Appetite*, 155, 104812.
- Parry, H. J., Cisin, I. H., Balter, M. B., Mellinger, G. D., & Manheimer, D. I. (1974). Increasing alcohol intake as a coping mechanism for psychic distress. In R. Cooperstock (Ed.), *Social aspects of the medical use of psychotropic drugs* (pp. 119–144). Alcoholism and Drug Addiction Research Foundation of Ontario.
- Petit, O., Basso, F., Merunka, D., Spence, C., Cheok, A. D., & Oullier, O. (2016). Pleasure and the control of food intake: An embodied cognition approach to consumer self-regulation. *Psychology & Marketing*, 33(8), 608–619.
- Petit, O., Merunka, D., Anton, J. L., Nazarian, B., Spence, C., Cheok, A. D., Raccach, D., & Oullier, O. (2016). Health and pleasure in consumers' dietary food choices: Individual differences in the brain's value system. *PLoS One*, 11(7), e0156333.
- Petit, O., Spence, C., Velasco, C., Woods, A. T., & Cheok, A. D. (2017). Changing the influence of portion size on consumer behavior via imagined consumption. *Journal of Business Research*, 75, 240–248.
- Petit, O., Velasco, C., & Spence, C. (2018). Are large portions always bad? Using the Delboeuf illusion on food packaging to nudge consumer behavior. *Marketing Letters*, 29(4), 435–449.
- Plata, A., Motoki, K., Spence, C., & Velasco, C. (2022). Trends in alcohol consumption in relation to the COVID-19 pandemic: A cross-country analysis. *International Journal of Gastronomy and Food Science*, 27, 100397.
- Provencher, V., Polivy, J., & Herman, C. P. (2009). Perceived healthiness of food. If it's healthy, you can eat more! *Appetite*, 52(2), 340–344.
- Ruf, J. C. (2003). Overview of epidemiological studies on wine, health and mortality. *Drugs under Experimental and Clinical Research*, 29(5–6), 173–179.
- Saliba, A. J., & Moran, C. C. (2010). The influence of perceived healthiness on wine consumption patterns. *Food Quality and Preference*, 21(7), 692–696.
- Schmidt, L., Tusche, A., Manoharan, N., Hutcherson, C., Hare, T., & Plassmann, H. (2018). Neuroanatomy of the vmPFC and dlPFC predicts individual differences in cognitive regulation during dietary self-control across regulation strategies. *Journal of Neuroscience*, 38(25), 5799–5806.
- Schuldt, J. P., & Schwarz, N. (2010). The 'organic' path to obesity? Organic claims influence calorie judgments and exercise recommendations. *Judgment and Decision making*, 5, 144–150.
- Scruton, R. (2013). *The aesthetics of architecture*. Princeton University Press.
- Sibley, F. (2001). *Approach to aesthetics: Collected papers on philosophical aesthetics*. Oxford University Press.
- Skaczkowski, G., Durkin, S., Kashima, Y., & Wakefield, M. (2016). The effect of packaging, branding and labeling on the experience of unhealthy food and drink: A review. *Appetite*, 99, 219–234.
- Snopek, L., Mlcek, J., Sochorova, L., Baron, M., Hlavacova, I., Jurikova, T., Kizek, R., Sedlackova, E., & Sochor, J. (2018). Contribution of red wine consumption to human health protection. *Molecules*, 23(7), 1684.
- Sörqvist, P., Hedblom, D., Holmgren, M., Haga, A., Langeborg, L., Nösti, A., & Kågstöm, J. (2013). Who needs cream and sugar when there is eco-labeling? Taste and willingness to pay for "eco-friendly" coffee. *PLoS One*, 8(12), e80719.
- Spence, C., Okajima, K., Cheok, A. D., Petit, O., & Michel, C. (2016). Eating with our eyes: From visual hunger to digital satiation. *Brain and Cognition*, 110, 53–63.
- Stice, E., Spoor, S., Bohon, C., Veldhuizen, M. G., & Small, D. M. (2008). Relation of reward from food intake and anticipated food intake to obesity: A functional magnetic resonance imaging study. *Journal of Abnormal Psychology*, 117(4), 924–935.
- Stigler, G. J., & Becker, G. S. (1977). De gustibus non est disputandum. *American Economic Review*, 67(2), 76–90.
- Sundar, A., & Kardes, F. R. (2015). The role of perceived variability and the health halo effect in nutritional inference and consumption. *Psychology & Marketing*, 32(5), 512–521.
- Taylor, J. J., Bing, M., Reynolds, D., Davison, K., & Ruetzler, T. (2018). Motivation and personal involvement leading to wine consumption. *International Journal of Contemporary Hospitality Management*, 30(2), 702–719.
- Thombs, D. L., Wolcott, B. J., & Farkash, L. G. (1997). Social context, perceived norms and drinking behavior in young people. *Journal of Substance Abuse*, 9, 257–267.
- Thorndike, E. L. (1920). A constant error in psychological ratings. *Journal of Applied Psychology*, 4(1), 25–29.
- Timeo, S., & Suitner, C. (2018). Eating meat makes you sexy: Conformity to dietary gender norms and attractiveness. *Psychology of Men & Masculinity*, 19(3), 418–429.
- Townsend, D. (1997). *An introduction to aesthetics*. Blackwell.
- Velasco, C., & Spence, C. (Eds.). (2019). *Multisensory packaging: Designing new product experiences*. Palgrave MacMillan. <https://doi.org/10.1007/978-3-319-94977-2>
- Wansink, B., & Chandon, P. (2006). Can "low-fat" nutrition labels lead to obesity? *Journal of Marketing Research*, 43(4), 605–617.
- Wertenbroch, K. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, 17(4), 317–337. <https://doi.org/10.1287/mksc.17.4.317>
- Wiedmann, K. P., Hennigs, N., Behrens, S. H., & Klarmann, C. (2014). Tasting green: An experimental design for investigating consumer perception of organic wine. *British Food Journal*, 116, 197–211.
- Wine Intelligence US Landscapes. (2020). *Press release: Frequent wine drinking population in the us in decline, led by younger consumers, though overall participation in wine category up*. Wine Intelligence Retrieved January 14, 2020, from <https://www.wineintelligence.com/press-releases/press-release-frequent-wine-drinking-population-in-the-us-in-decline-led-by-younger-consumers-though-overall-participation-in-wine-category-up>
- Yang, J., & Lee, J. (2020). Current research related to wine sensory perception since 2010. *Beverages*, 6(3), 47.
- Yoo, J. E., Shin, D. W., Han, K., Kim, D., Jeong, S. M., Koo, H. Y., Yu, S. J., Park, J., & Choi, K. S. (2021). Association of the frequency and quantity of alcohol consumption with gastrointestinal cancer. *JAMA Network Open*, 4(8), e2120382.
- Yoo, Y. J., Saliba, A. J., & Prenzler, P. D. (2010). Should red wine be considered a functional food? *Comprehensive Reviews in Food Science and Food Safety*, 9(5), 530–551.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX: EPICUREAN DRINKING PLEASURE TENDENCIES SCALE

If I try, I can clearly and easily imagine the flavor of many wines.

My friends say that I am an epicure.

I like to discuss the flavor of wine with my friends.

There is a lot of beauty in wine.

I can easily find the words to describe the flavor of many wines.

More than other people, I value the look, the smell, the taste, the texture in mouth of wines.