

8-19-2022

## Thinking outside the bottle: Effects of alternative wine packaging

Marissa Orlowski  
*University of Central Florida*

Sarah Lefebvre  
*Murray State University, slefebvre@murraystate.edu*

Robin M. Back  
*University of Central Florida*

Follow this and additional works at: <https://digitalcommons.murraystate.edu/faculty>



Part of the [Hospitality Administration and Management Commons](#)

---

### Recommended Citation

Orlowski, M., Lefebvre, S., & Back, R. M. (2022). Thinking outside the bottle: Effects of alternative wine packaging. *Journal of Retailing and Consumer Services*, 69, 103117.

This Journal Article is brought to you for free and open access by the Faculty Works at Murray State's Digital Commons. It has been accepted for inclusion in Faculty & Staff Research and Creative Activity by an authorized administrator of Murray State's Digital Commons. For more information, please contact [msu.digitalcommons@murraystate.edu](mailto:msu.digitalcommons@murraystate.edu).

1                   **Thinking outside the bottle: Effects of non-traditional wine packaging**

2

3   **Abstract**

4   Packaging communicates intrinsic product attributes to consumers, which can influence consumer  
5   response and decision-making; however, little is known about the impact of non-traditional  
6   packaging formats. The current research aims to bridge this gap. Across five studies, we  
7   demonstrate that non-traditional packaging negatively influenced purchase intention of a complex  
8   product, wine, through product appeal and taste perceptions (Study 1A)/expectations (Studies 1B  
9   – 4). We also demonstrate that the consumer response to non-traditional packaging is a function  
10  of individual differences (desire for unique products) and label attributes (eco-friendly labels).

11

12   **Keywords:** packaging; purchase intention; taste perceptions; product design; need for uniqueness;  
13   eco-friendly

14

15   **Funding:** This research did not receive any specific grant from funding agencies in the public,  
16   commercial, or not-for-profit sectors.

17

# Thinking outside the bottle: Effects of non-traditional wine packaging

## 1. Introduction

“Whatever the product, the customers *see* it first before they buy it. The physical performance comes later, *the visual always comes first.*” (Hollins & Pugh, 1990, p. 91).

Marketers are faced with a wide variety of attributes from which to choose when making product packaging decisions. A product’s packaging and appearance can not only attract a consumer’s attention but also convey meaning through visual design cues (Radford & Bloch, 2011). Packaging selection is particularly important in a food/beverage purchasing situation, where consumers typically have limited information about the intrinsic qualities (e.g., aroma, taste) of the product. This lack of information requires consumers to make evaluations based on extrinsic qualities, such as physical product traits like price and packaging, and integrate those evaluations into their purchase decisions (Liu et al., 2020; Mueller & Szolnoki, 2010). This complexity in the consumer food/beverage purchase experience highlights the importance of understanding the factors that influence consumer purchasing decisions.

Extant research has demonstrated the influence of packaging attributes on consumer perceptions and downstream behavior. With the enormous range of options available to consumers, innovative packaging can act as a strategic weapon for marketers to differentiate and promote their products in a crowded marketplace, creating a competitive advantage for the brand and generating positive consumer evaluations and sales (García-Madariaga et al., 2019). One such option that has received little attention in academia is the use of a non-traditional packaging format which may be viewed as more unique and/or innovative by consumers (e.g., ketchup to-go in a peel-top packet that allows for dipping or squeezing) when compared to traditional packaging formats for the product category (e.g., ketchup to-go in squeeze packets).

The current research focuses on the beverage segment, and more specifically on wine, a product category where the search environment is highly complex (Spence, 2020). Though the majority of wine is sold in traditional 750ml bottles, wine producers and marketers continue to vie for consumers in a stagnant market and, as a result, a variety of non-traditional packaging formats have emerged. In addition to Bag-in-Box (BIB or “boxed wine”) formats, which have been available in the United States (U.S.) with varying degrees of success for close to four decades, brands are now packaging wine in single-serving containers such as cans, pouches, and cartons

1 (Nesselhauf et al., 2017), and these innovations are capturing the attention of younger wine  
2 consumers (Castellini & Samoggia, 2018). In the U.S., wine sold in these formats has experienced  
3 a greater growth rate compared to wine sold in 750ml bottles (Kelley et al., 2020). **Notably, the**  
4 **non-traditional packaging format focused on in this research, canned wine, was estimated to make**  
5 **up USD \$235.7 million (Grand View Research, 2021A) of the USD \$434.99 billion global wine**  
6 **market in 2021 (Grand View Research, 2021B).**

7 With the variety of options available, it is perhaps no surprise that for consumers, purchase  
8 decisions related to wine are often a difficult and complicated process where extrinsic qualities are  
9 a primary source of information. Wine packaging research has largely focused on two areas: labels  
10 (e.g., **Celhay & Remaud, 2018**; Jaud & Melnyk, 2020; Lick et al., 2017; **Mueller et al., 2010**; Pelet  
11 et al., 2020) and bottle closures (e.g., Bekkerman & Brester, 2019; Spence & Wang, 2017). While  
12 extant research has shed considerable light on the role packaging and labelling plays in consumer  
13 selection of wine sold in 750ml bottles, non-traditional packaging formats have been minimally  
14 explored. We aim to narrow this gap by investigating the following research questions: (1) how  
15 does a non-traditional wine package influence consumer purchase intention? (2) might the effect  
16 be different based on individual consumer traits? and (3) how can wine producers influence  
17 consumer purchase intention for wine sold in non-traditional packaging?

18 **We explore these research questions across five studies. In Study 1A, we test the effect of**  
19 **wine packaging format (traditional 750ml bottle vs. non-traditional aluminum can) on purchase**  
20 **intention through product appeal and taste perceptions in a lab-based experiment. In Study 1B, we**  
21 **seek to replicate the results of Study 1A in online purchasing scenario. Study 2 extends Studies**  
22 **1A and 1B by exploring a continuum of perceived traditionality of packaging alternatives and the**  
23 **potential differential effect of two additional packaging formats (traditional 750ml bottle vs.**  
24 **traditional miniature bottle vs. non-traditional aluminum bottle vs. non-traditional aluminum can).**  
25 **Study 3 tests the moderating effect of consumer desire for unique products (high vs. low). Study**  
26 **4 investigates the moderating effect of eco-friendly labeling (presence vs. absence). This work**  
27 **contributes to consumer marketing by empirically investigating how a growing format within the**  
28 **wine category impacts consumer perceptions and subsequent intent to purchase. Further, the**  
29 **underlying mechanism is examined and replicated using both actual and expected taste**  
30 **perceptions.**

1 **2. Literature Review**

2 *2.1. Packaging as a source of information*

3 More than three quarters of food and beverage purchasing decisions are made at the point-  
4 of-sale (Simmonds & Spence, 2017), making food and beverage packaging more than simply a  
5 practical means of containing and transporting products. Product packaging is a powerful medium  
6 for communicating with the consumer, influencing perception and, in turn, impacting behavior.  
7 Prior research in product packaging has identified several design elements that convey information  
8 to consumers including shape, color, size, typeface, and weight (see Spence, 2016, for a review).  
9 These external product attributes play an important role in food and beverage purchasing since the  
10 product cannot be consumed or sampled prior to purchasing. Because of this limitation, consumers  
11 must rely on external product attributes, such as packaging, to act as cues for the core product.

12 Cue utilization theory provides a foundation for understanding how consumers formulate  
13 expectations for non-visible product attributes (Olson & Jacoby, 1972). Since consumers have  
14 limited information in the purchasing context and limited processing capabilities, they must rely  
15 on information communicated through external product cues to make inferences about internal and  
16 unobservable product attributes, which in turn influence consumer behavior towards the product.  
17 Termed judgmental heuristics, consumers use the information transmitted by packaging design  
18 elements (i.e., external product cues) to form their expectations and judgments of the product,  
19 which has been shown to influence downstream behaviors (Piqueras-Fiszman & Spence, 2015).  
20 Packaging cues have the ability for consumers to create expectations about the sensory  
21 characteristics of a product (Van Esch et al., 2019), which are important in food and beverage  
22 purchases. Judgmental heuristics are relied upon to reduce the cognitive effort required in decision  
23 making. For instance, consumers rated beverages in flimsy (vs. durable) cups lower in taste, thus  
24 demonstrating how a consumer draws conclusions about a product’s intrinsic sensory  
25 characteristics (taste) based on an external product cue (packaging) and, consequently, how such  
26 conclusions influenced downstream behaviors (Krishna & Morrin, 2008). Thus, when judgmental  
27 heuristics are evoked through external product cues inferences about internal product attributes are  
28 likely to be made.

29 As a complex product, wine is no exception to judgmental heuristics (Bekkerman &  
30 Brester, 2019; Nesselhauf et al., 2017). That is to say, consumers will rely on their evaluation of  
31 observable product characteristics as a proxy for intrinsic product attributes and then incorporate

1 this evaluation into their purchase decision. Furthermore, although the wine aisle has been  
2 recognized as one of the most challenging search environments due to the constant depth and  
3 breadth of products (Spence, 2020), there is minimal evidence of external search efforts by  
4 consumers; rather, wine purchase decisions are typically made at the point-of-sale with  
5 information from readily available sources, such as external product cues (Chaney, 2000).

6 Previous studies have suggested that perceptions of intrinsic wine attributes are related to  
7 external packaging cues such as the weight and tactile characteristics of a glass bottle, with  
8 consumers linking heavier bottles to higher quality, which in turn is found to command a higher  
9 price (Piqueras-Fiszman & Spence, 2012). Additionally, cork-stopped (vs. screw-capped) wine  
10 bottles were also perceived as higher in quality (Spence & Wang, 2017), while wine labels that are  
11 easy to read received higher hedonic evaluations as compared to labels that are difficult to read  
12 (Gmuer et al., 2015). **A sub-stream of wine labeling research, grounded in semiotics, has found  
13 that graphical design elements of wine labels such as colors, typefaces, and illustrations evoke  
14 different meanings for consumers, and these meanings can influence brand perceptions and  
15 purchase intentions. For example, simple designs convey modernity and authenticity and are more  
16 likely to be purchased (Celhay & Remaud, 2018; Favier et al., 2019).** Thus, based on cue utilization  
17 theory and judgmental heuristics, consumers are likely to use wine packaging to formulate  
18 expectations about the intrinsic attributes of the wine, and in turn influence behavioral intentions.

## 19 *2.2. Non-traditional packaging formats and product appeal*

20 In the context of the current research, we define non-traditional packaging as packaging  
21 that varies from the traditional 750ml bottle. The use of a non-traditional packaging format  
22 provides a method of differentiating products from competitors through a design element that is  
23 likely to increase the attention given to a particular product. Extant research suggests that format  
24 “newness” has positive effects on consumers (Lee et al., 2018). Innovative and novel packaging  
25 formats have been shown to convey intrinsic attributes, such as product quality (Mugge &  
26 Schoormans, 2012), and result in increased liking for the product based on aesthetic appeal  
27 (Landwehr et al., 2013).

28 However, new and novel formats, especially those that are quite different from the norm  
29 within the product category, can cause confusion and resistance in the marketplace (Lee &  
30 O’Connor, 2003; Mugge & Dahl, 2013). This negative response is particularly germane to  
31 complex products, such as wine, as it can be linked to product phobia (Mukherjee & Hoyer, 2001).

1 For example, Nesselhauf et al. (2017) compared 750ml wine bottles with screw-top closures  
2 against 3L Bag-in-Box (BIB) packaging and four-pack single-serve StackTek® (stackable plastic  
3 glasses) packaging. They found consumers were more willing to purchase screw-top wine bottles,  
4 which were considered the least innovative format, than either the BIB or StackTek® packaging.  
5 Thus, non-traditional forms of packaging (e.g., canned wine) that are less familiar to most  
6 consumers are vulnerable to a negative response in an effort by consumers to avoid unfamiliarity.  
7 The response to the non-traditional packaging is likely to manifest in the form of diminished  
8 product appeal or attractiveness as a reflection of the overall evaluation of the unfamiliar product.

### 9 *2.3. Formation of taste perceptions and purchase intentions*

10 Given that taste plays an important role in the consumer purchase decision for food and  
11 beverage products, it is important for marketers to understand how to create expectations for a  
12 great tasting product (Simmonds & Spence, 2017). It is also critical to acknowledge that from a  
13 sensory perspective, the taste of wine is the most important factor in determining quality  
14 perceptions and purchase decisions (Charters & Pettigrew, 2007; MacDonald et al., 2013). Extant  
15 research has examined how product cues influence taste perceptions of food and beverage  
16 products. Specifically, research has examined the cross-modal influence of product cues, where  
17 information provided through one sensory input influences perceptions of a different sensory  
18 modality. For instance, even small differences in beverage color, a visual input, significantly  
19 altered consumers ability to identify flavor profiles (Garber Jr. et al., 2016). Additionally, wine  
20 flavor has been described relative to its color, even when the color was artificially created (Wang  
21 & Spence, 2019). This cross-modal influence has also been shown with packaging formats in the  
22 form of beverage vessels, where non-alcoholic beverages served in a can were expected to be less  
23 tasty and, in turn, participants were willing to pay less for the product (Lefebvre & Orłowski,  
24 2019).

25 Visual appeal of food and beverage products has also been shown to impact taste  
26 evaluations. For example, Zellner et al. (2014) revealed that when a plate of food was presented in  
27 an attractive manner, diners rated the taste of the meal more positively. Further, when product  
28 attractiveness was associated with healthiness, this in turn positively impacted perceived tastiness  
29 (Hagen, 2020). However, non-traditional packaging formats may result in lower evaluations of a  
30 food or beverage product, driven by the consumer's assessment of the product's attractiveness or  
31 appeal. Thus, based on cue utilization theory and judgmental heuristics, we reason it is likely that

1 if a product is perceived as unappealing by a consumer, the negative response may transfer to the  
2 taste perceptions (expected or actual) for the product. As taste is one of the most important  
3 attributes when making a food/beverage purchasing decision, we further reason that a consumer  
4 will be less likely to purchase a product if taste perceptions are poor. More formally, we  
5 hypothesized:

6 **H1:** A non-traditional (vs. traditional) packaging format will decrease consumers’  
7 purchase intention through product appeal and taste perceptions.

8 Figure 1 provides a visual representation of Hypothesis 1. We test this hypothesis in Studies 1A,  
9 1B, and 2.

10 >>>> PLEASE INSERT FIGURE 1 HERE <<<<<

11 **3. Study 1A**

12 *3.1. Pre-test of packaging manipulation: Traditional vs. non-traditional*

13 For this pre-test, as well as for all other online studies, participants were recruited through  
14 the Amazon Mechanical Turk (MTurk) workforce, where ‘workers’ are invited to complete human  
15 intelligence tasks (HITS) in exchange for fair monetary compensation. Compensation was  
16 determined using acceptable market rates as indicated by MTurk. All participants were required  
17 to be located in the U.S., to be over the age of 21, have a 93 – 95% approval rating, and to have  
18 completed at least 100 online studies through MTurk. A consent form was provided at the start of  
19 the study. This study, as well as all subsequent studies, were approved by the university’s  
20 Institutional Review Board.

21 The wine brand used for this study, though sold at major wine retailers, is a red blend  
22 relatively unknown in the U.S.; therefore, the 750ml wine bottles used for the traditional packaging  
23 condition were purchased from a chain liquor store. For the non-traditional packaging condition,  
24 the research team created the wine cans using professionally printed wraparound labels from an  
25 image file provided by the winery and unbranded aluminum cans. The non-traditional label was  
26 provided by the wine manufacturer and closely resembled the labeling of the existing traditional  
27 label (see Appendix A). The non-traditional wraparound labels were professional printed and  
28 affixed to the unbranded aluminum cans, thus creating a canned version of the traditional  
29 packaging. The labels in both conditions remained the same and were only adapted to appropriately  
30 fit the can.



1 For the pre-test, 61 participants (75.8% male;  $M_{Age} = 36$  years) were randomly assigned to  
2 review either the traditional 750ml glass bottle or the non-traditional aluminum can. After  
3 reviewing the image, participants completed a two-item measure assessing the perceived  
4 traditionality of the packaging (“Compared to a standard bottle of wine, how traditional is the wine  
5 packaging you reviewed?” and “The packaging of wine I reviewed is:”; 1 = very traditional, 7 =  
6 not at all traditional;  $r = .82$ ). Then, since familiarity with a product can influence consumer  
7 judgments and choice (Rao & Monroe, 1988) participants completed a measure of wine familiarity  
8 (“How familiar are you with wine in general?”; 1 = not at all, 7 = very much). **SPSS was used for**  
9 **statistical analysis across all studies. Results of an ANCOVA found participants perceived the**  
10 **canned wine packaging to be significantly less traditional than the 750 mL bottle ( $M_{Non-traditional} =$**   
11 **6.11 vs.  $M_{Traditional} = 4.13$ ;  $F(1,58) = 28.50$ ,  $p < .001$ ,  $\eta^2 = .33$ ).** Familiarity with wine was non-  
12 significant as a covariate ( $p = .90$ ). Based on the results, we adopted the packaging manipulation  
13 as designed for Studies 1A, 1B, and Study 3.

### 14 *3.2. Participants and design*

15 Study 1A was a single-factor between-subjects design with two experimental conditions  
16 (packaging format: traditional vs. non-traditional). The experiment took place in a beverage lab at  
17 a large university in the southeastern U.S. Participants were recruited from the university and  
18 invited to participate in a wine tasting. At the time of sign-up, participants were informed they  
19 needed to be at least 21 years of age and would be required to show proof of legal drinking age on  
20 the day of the study. One hundred participants completed the study; however, six participants  
21 failed the embedded attention checks leaving a final sample of 94 (18.3% male;  $M_{Age} = 23$  years).

### 22 *3.3. Procedure*

23 Participants were randomly assigned to one of the two packaging format conditions. All  
24 participants completed the experiment in the same lab environment and were provided with the  
25 same set-up, which was pre-set before entry to the lab: one ounce of wine pre-poured into a wine  
26 glass, a glass of water, a small dish of plain tasting crackers, and the study questionnaire. To control  
27 for taste associations based on prior experiences with a specific packaging format, all wine was  
28 poured from the 750ml wine bottle out of sight from the participants, and the same style of wine  
29 glass was used in both conditions to control for potential influence of haptic properties. Upon entry  
30 to the lab, the packaging format assigned to that experimental condition was on display around the

1 room for participant reference. Participants were asked to sample the wine provided and then  
2 complete the study questionnaire.

3 Purchase intention was measured using a four-item scale developed from established  
4 purchase intention scales (Jang & Kim, 2015; Youn & Kim, 2017;  $\alpha = 0.96$ ). Product appeal was  
5 measured with three items (Amos & Spears, 2010;  $\alpha = 0.79$ ). Taste was also measured using three  
6 items (Lefebvre & Orłowski, 2019;  $\alpha = 0.75$ ). **A complete list of measurement items and response**  
7 **scales is provided in Appendix B.** These measures were followed with the same wine familiarity  
8 item used in the pre-test and two attention check questions (“What was the wine packaging style  
9 you viewed?”; “What was the brand of wine you tasted?”). The questionnaire closed with  
10 demographic questions.

### 11 *3.5. Results*

12 PROCESS Model 6 with 10,000 bootstrap samples (Hayes, 2017) was used to examine the  
13 hypothesized serial mediation model with wine familiarity included as a covariate (see Table 1).  
14 The results reveal a negative effect of packaging format (0 = traditional, 1 = non-traditional) on  
15 product appeal ( $a_1 = -0.17, p < .05$ ). Product appeal had a positive effect on taste ( $d = 0.51, p <$   
16  $.001$ ), which in turn had a positive effect on purchase intention ( $b_2 = 0.99, p < .001$ ). Moreover, in  
17 support of H1, the results support the proposed mediation chain; specifically, that product appeal  
18 ( $M_1$ ) and taste ( $M_2$ ) operate in sequence to mediate the relationship between packaging format and  
19 purchase intention (estimate =  $-0.09$ , 95% C.I. =  $-0.175$  to  $-0.015$ ). The direct effect of packaging  
20 format on purchase intention was not significant ( $c_1 = 0.09, p = .25$ ).

21 >>>>> **PLEASE INSERT TABLE 1 HERE** <<<<<<

### 22 *3.6. Discussion*

23 The findings from Study 1A offer support for H1. The results demonstrate that a non-  
24 traditional form of wine packaging (e.g., cans) was perceived as less appealing than the traditional  
25 wine bottle. As a result, consumers rated the wine as worse-tasting and thus were less likely to  
26 purchase wine packaged in the non-traditional format. To demonstrate robustness, Study 1B tests  
27 these effects in an online scenario.

## 28 **4. Study 1B**

29 In most buying situations consumers do not have the ability to sample the product when  
30 making their purchase decision. Therefore, the aim of Study 1B was to replicate the findings of

1 Study 1A, but with expected taste rather than actual taste perceptions. Study 1B also enhances  
2 generalizability by designing a scenario which is typical to the retail environment.

### 3 *4.1. Participants and design*

4 A single-factor between-subjects experiment with the same two conditions as Study 1A  
5 was conducted. Participants were recruited from MTurk in exchange for fair monetary  
6 compensation. Of the 111 participants who completed the study, 20 failed the embedded attention  
7 check measures and one was under the age of 21, leaving a final sample of 90 (48.9% male;  $M_{Age}$   
8 = 34 years).

### 9 *4.2. Procedure*

10 The experiment was set up as a beverage evaluation task using professional images of the  
11 two wine packaging formats. The same wine brand from Study 1A was used for this study, and  
12 images were provided by the winery to ensure high-quality marketing-style photos (see Appendix  
13 A). Participants were randomly assigned to one of the two conditions and told they would be  
14 “provided with an image of a beverage in its packaging. After reviewing the beverage, you will be  
15 asked a series of evaluative questions.” To avoid potential confounds, the branding and  
16 information provided on the packaging was kept as similar as possible across conditions.  
17 Following the image of the product, participants responded to the same measures of purchase  
18 intention ( $\alpha = 0.96$ ), product appeal ( $\alpha = 0.97$ ), taste **expectations** ( $\alpha = 0.95$ ), wine familiarity, and  
19 demographic items as Study 1A (see **Appendix B**). Two attention check measures were also  
20 included.

### 21 *4.4. Results*

22 PROCESS Model 6 with 10,000 bootstrap samples was used to examine the hypothesized  
23 serial mediation model, with wine familiarity included as a covariate (see Table 2). Like Study 1A,  
24 the results support a negative effect of packaging format (0 = traditional, 1 = non-traditional) on  
25 product appeal ( $a_1 = -0.69, p < .05$ ), a positive effect of product appeal on expected taste ( $d = 0.71,$   
26  $p < .001$ ), and a positive effect of expected taste on purchase intention ( $b_2 = 0.42, p < .001$ ). The  
27 results are also consistent with Study 1A and indicate that packaging format influences purchase  
28 intention serially through product appeal and expected taste (estimate = -0.21, 95% C.I. = -0.456  
29 to -0.012), thus offering further support for H1. The direct effect of packaging format on purchase  
30 intention was not significant ( $c_1 = -0.13, p = .44$ ).

31 >>>>> **PLEASE INSERT TABLE 2 HERE** <<<<<<

#### 1 4.5. Discussion

2 Study 1B provides additional support for H1 and expands on the results of Study 1A by  
3 demonstrating that, in addition to impacting *actual* taste perceptions, product appeal significantly  
4 impacts *expected* taste. Further, both actual taste (Study 1A) and expected taste (Study 1B)  
5 positively impact purchase intentions. However, a limitation of both studies is that they only  
6 considered two packaging formats: the traditional 750ml wine bottle and a non-traditional wine  
7 can. Additionally, the traditional wine bottle contains multiple servings while a non-traditional can  
8 is a single serving. These limitations are addressed in Study 2.

#### 9 5. Study 2

10 Study 2 further tests H1 by examining multiple single-serving packaging formats. With  
11 numerous packaging options available to wine producers, we posit that traditional versus non-  
12 traditional packaging may not be mutually exclusive, but instead function as end points along a  
13 continuum of options. As discussed previously, product packaging can provide information to the  
14 consumer to aid in the formation of expectations. This information can be conveyed through  
15 multiple channels, including materials and shape (Van Rompay & Pruyn, 2011). Critically,  
16 previous research indicates that for food and beverage products, congruence between a product  
17 and its expected packaging/container results in more positive consumer perceptions and  
18 evaluations of the product (e.g., Cavazzana et al., 2017; Pleyers, 2021; Van Rompay & Pruyn,  
19 2011). When packaging formats move further away from tradition, they inherently become less  
20 congruent with consumer expectations; therefore, we expect Study 2 to replicate the hypothesized  
21 effects of Studies 1A and 1B.

##### 22 5.1. Pre-test of packaging manipulation: Traditional to non-traditional continuum

23 **Ninety-seven participants (56.7% male;  $M_{\text{Age}} = 38$  years) completed the online study**  
24 **through MTurk and passed the embedded attention check questions.** Participants were randomly  
25 assigned to review one of four packaging formats (traditional 750ml bottle, traditional miniature  
26 bottle, non-traditional aluminum bottle, non-traditional can). After reviewing an image of the  
27 packaging, they completed the same two-item measure used in the Study 1A pre-test ( $r = .82$ ). In  
28 support of the manipulation, a one-way ANCOVA, **with familiarity included as the covariate,**  
29 found a significant overall effect across packaging formats ( $F(3,92) = 21.20, p < .001, \eta^2 = .41$ ).  
30 Bonferroni post-hoc comparisons found the traditional 750ml bottle ( $M_{\text{Traditional Bottle}} = 3.10$ ) to be  
31 significantly more traditional than both non-traditional formats ( $M_{\text{Aluminum Bottle}} = 5.27, p < .001$ ;

1  $M_{\text{Can}} = 6.08, p < .001$ ). The difference between the two traditional formats was non-significant  
2 ( $M_{\text{Mini Bottle}} = 3.88, p = .42$ ). The miniature bottle was also rated as significantly more traditional  
3 than each of the non-traditional packaging formats. **Familiarity was non-significant ( $p > .76$ )**. The  
4 manipulation was thus adopted for Study 2 and Study 4.

### 5 *5.2. Participants and design*

6 Study 2 was a single-factor between-subjects design with four experimental conditions  
7 (packaging format: traditional 750ml bottle, traditional miniature bottle, non-traditional aluminum  
8 bottle, non-traditional can). Three-hundred and seventy-four participants completed the study via  
9 MTurk in exchange for fair monetary compensation. Ten participants failed the embedded  
10 attention check measures, leaving a final sample of 363 (57.6% male;  $M_{\text{Age}} = 38$  years).

### 11 *5.3. Procedure*

12 Study 2 followed the same procedure as Study 1B. To further increase generalizability, we  
13 used a different existing wine brand for Study 2. The selected brand is sold at major wine retailers  
14 in all four packaging formats, therefore the branding remained similar across study conditions (see  
15 Appendix C). After reviewing the image of the product, participants completed the purchase  
16 intention measure ( $\alpha = 0.94$ ), product appeal measure ( $\alpha = 0.96$ ), and wine familiarity item used  
17 in Studies 1A and 1B, and the taste expectations measure ( $\alpha = 0.92$ ) used in Study 1B (see  
18 **Appendix B**), followed by embedded attention check questions and demographic items.

### 19 *5.5. Results*

20 To examine the serial mediation model, we used PROCESS Model 6 with the multi-  
21 categorical indicator coding option selected and 10,000 bootstrap samples (see Table 3). The effect  
22 of packaging format on product appeal was significant only for the non-traditional packaging  
23 format conditions, where the non-traditional packaging formats decreased product appeal in  
24 comparison to the traditional 750ml wine bottle condition. Product appeal was found to have a  
25 positive effect on taste expectations, which in turn had a positive effect on purchase intention. The  
26 serial indirect effect of packaging format on purchase intention was significant for the non-  
27 traditional aluminum bottle format (estimate = -0.09, 95% C.I. = -0.088 to -0.001) and the non-  
28 traditional can format (estimate = -0.12, 95% C.I. = -0.246 to -0.033). The serial indirect effect for  
29 the traditional miniature bottle format was non-significant (estimate = -0.043, 95% C.I. = -0.134  
30 to 0.033). The direct effect on purchase intention was non-significant across all packaging formats  
31 compared to the traditional 750ml bottle packaging format.

1 >>>> PLEASE INSERT TABLE 3 HERE <<<<<

2 *5.6. Discussion*

3 Study 2 provides further support for H1 and demonstrates the scope of the hypothesized  
4 effects. Notably, the negative effect was stronger for the can than the aluminum bottle; this result  
5 suggests that as packaging formats move closer to the non-traditional end of the continuum and  
6 become less congruent with the traditional, consumers perceive the product as less appealing,  
7 which in turn negatively affects taste expectations and purchase intentions. The results also reveal  
8 the importance of the “image mold” to packaging shape. First introduced by Cheskin (1957), image  
9 molds describe the phenomenon which occurs when certain packaging shapes are associated with  
10 specific product categories. These associations become category standards for consumers and act  
11 as cues of product attributes (Spence, 2016). In the case of wine, the 750ml traditional bottle may  
12 serve as an image mold for the entire wine category; thus, the formats which closely resemble it,  
13 such as the miniature glass bottle, still achieve product-package congruency for the consumer.

14 **6. Study 3**

15 Unfamiliar or incongruent products may also be viewed as unique products that contrast  
16 with traditional product formats. Although these unique products may lead to avoidance for some  
17 consumers, for others uniqueness is a desirable product attribute. Uniqueness theory argues that  
18 individuals are motivated, at varying levels, to see themselves as different from others. As  
19 uniqueness can be expressed in a variety of forms and outlets, material goods and consumer  
20 products are particularly valued because they satisfy the need for uniqueness without risking severe  
21 social penalties (Snyder, 1992). Thus, the need or desire for unique products (DUP) is a goal-  
22 oriented state that varies across consumers and is motivated by counter-conformity, where  
23 consumers use products to differentiate themselves from others and enhance their self- and social  
24 image (Lynn & Harris, 1997; Tian et al., 2001). Extant research indicates that high-DUP  
25 consumers demonstrate a greater evaluation for products that are perceived as truly unique (Franke  
26 & Schreier, 2008). Consequently, for some consumers a non-traditional packaging format is a  
27 desirable attribute that will make the product more appealing. However, it is likely that high-DUP  
28 consumers are also more familiar with unique packaging formats to the level where the non-  
29 traditional packaging form must surpass a threshold to be perceived as a differentiator product. For  
30 instance, aluminum cans are used for a variety of beverages including soda and sparkling water;  
31 therefore canned wine, though considered a non-traditional packaging format when compared to a

1 750ml bottle, may not be unique enough to make the product more appealing to high-DUP  
2 consumers. Thus, we propose:

3 **H2:** The indirect effect of packaging format (non-traditional vs. traditional) on purchase  
4 intention through product appeal and taste expectations is moderated by consumers' desire  
5 for unique products. Specifically, when desire for unique products is high (vs. low) the  
6 serial mediation effect will be attenuated.

### 7 *6.1. Participants and design*

8 To assess H2, Study 3 manipulated packaging format (traditional vs. non-traditional) and  
9 measured participants' desire for unique products. A total of 206 participants recruited from  
10 MTurk completed the study; however, 43 failed one or more embedded attention check measures  
11 and three were under the age of 21, leaving a final sample of 160 (63.7% male;  $M_{Age} = 37$  years).

### 12 *6.2. Procedure*

13 Study 3 followed the same procedure and used the same two wine images as Study 1B.  
14 After viewing the product, participants completed the same purchase intention ( $\alpha = 0.94$ ), product  
15 appeal ( $\alpha = 0.95$ ), and taste expectations ( $\alpha = 0.94$ ) measures used in the prior studies, followed  
16 by Lynn and Harris's (1997) eight-item Desire for Unique Consumer Products scale ( $\alpha = 0.93$ ).  
17 **The items and response scale are provided in Appendix B.** As with the prior studies, participants  
18 also completed the wine familiarity item, embedded attention checks, and demographic items. For  
19 this study, a third item attention check item was added which asked participants to identify an  
20 image unrelated to the study.

### 21 *6.4. Results*

22 To test H2, moderated serial mediation analysis was conducted using PROCESS Model 83  
23 with 10,000 bootstrap samples and wine familiarity included as a covariate (see Table 4). The  
24 overall index of moderated mediation was significant (effect = 0.15, 95% C.I. = 0.011 to 0.315).  
25 As expected, there was a significant interaction effect between packaging format and DUP on  
26 product appeal ( $a_3 = 0.39, p < .05$ ), which then influenced participants' expected taste ( $d = 0.75, p$   
27  $< .001$ ). Subsequently, expected taste significantly impacted purchase intention ( $b_2 = 0.49, p <$   
28  $.001$ ). The serial indirect effect through product appeal and expected taste was significant among  
29 participants with a low DUP (effect = -0.44, 95% C.I. = -0.854 to -0.124). However, among  
30 participants with a high DUP, the indirect effect was not significant (effect = -0.001, 95% C.I. = -  
31 0.217 to 0.222).



1 >>>> PLEASE INSERT TABLE 4 HERE <<<<<

2 *6.5. Discussion*

3 The results of Study 3 provide support for H2, where consumer DUP is a boundary  
4 condition for the effect of wine packaging on purchase intention through the underlying  
5 mechanism of product appeal and taste. Interestingly, high-DUP consumers found the traditional  
6 wine bottle and non-traditional can packaging format to be equally appealing, while low-DUP  
7 consumers found the wine bottle to be more appealing. However, since DUP is an internal trait,  
8 wine retailers must also consider other attributes which might improve the acceptance of non-  
9 traditional packaging. We explore this in Study 4.

10 **7. Study 4**

11 A majority of non-traditional wine packaging formats provide cost-saving benefits to  
12 manufacturers. Traditional glass bottles are an expensive material, and the production of new glass  
13 has a substantial impact on the environment (Thompson-Witrick et al., 2021). Therefore,  
14 manufacturers should explore methods to mitigate the negative effects that non-traditional  
15 packaging has on consumer purchase intention. Literature has shown sustainability or “eco-  
16 friendliness” to be a product attribute desired by consumers, and the use of eco-labels is one such  
17 method to educate and inform consumers about sustainable and environmentally-friendly products  
18 (Taufique et al., 2014). From the perspective of cue utilization theory, eco-labels highlight  
19 otherwise unobservable information about a product’s environmental attributes, thus allowing  
20 consumers to differentiate eco-friendly products from non (or less) eco-friendly alternatives  
21 (Gorton et al., 2021). Prior work has demonstrated the ability of eco-labels to positively affect  
22 consumer perceptions and evaluations of foods and beverages (e.g., Cho & Baskin, 2018; Donato  
23 & D’Aniello, 2021; Donato & Adigüzel, 2022; Pancer et al., 2017).

24 Specific to the wine category, the effectiveness of eco-labels is less clear. Some studies  
25 have demonstrated that eco-labels have no effect or a detrimental effect, raising concerns of an  
26 “eco-penalty” in the context of wine (Delmas & Grant, 2014; Lockshin & Corsi, 2012). Yet, other  
27 research has found wine consumers have favorable opinions towards eco-friendly labels, **consider**  
28 **this attribute in the purchase decision process, and are willing to pay a premium for wines with**  
29 **environmentally/eco-friendly claims** (Johnston & Velikova, 2017; Loose & Remaud, 2013).  
30 Further, a recent review determined that consumers maintain positive perceptions of and  
31 preference for wines with eco-labels (Schäufele & Hamm, 2017). Therefore, we posit:



1           **H3:** The indirect effect of packaging format (non-traditional vs. traditional) on purchase  
2 intention through product appeal and taste expectations is moderated by the presence of an  
3 eco-friendly label. Specifically, the presence (vs. absence) of an eco-friendly label will  
4 attenuate the serial mediation effects.

#### 5 *7.1. Participants and design*

6           Study 4 was a 2 (packaging format: traditional vs. non-traditional) x 2 (eco-label: present  
7 vs. absent) between-subjects design. Four-hundred and four participants completed the study  
8 through MTurk in exchange for fair monetary compensation. Responses from 49 participants were  
9 removed, as 5 participants indicated they did not see an image of the product and 44 participants  
10 indicated they did not drink wine. Of the remaining 355 participants, 20 failed the embedded  
11 attached check measures, leaving a final sample of 335 (55.0% male;  $M_{Age} = 44$  years).

#### 12 *7.2. Procedure*

13           The general procedure followed that of Studies 1B, 2, and 3. The wine brand from Study 2  
14 was used for the packaging format stimuli. Participants in the traditional condition reviewed a  
15 glass miniature wine bottle while those in the non-traditional condition reviewed canned wine. In  
16 the eco-label present condition, an “Eco Friendly” circular label was added to the bottle/can. In the  
17 eco-label absent condition, no label was included (see Appendix D). Other branding elements  
18 remained the same across the conditions. After reviewing the product, participants completed the  
19 purchase intention measure ( $\alpha = 0.95$ ), product appeal measure ( $\alpha = 0.95$ ), taste expectations  
20 measure ( $\alpha = 0.89$ ), wine familiarity item, embedded attention checks questions, and demographic  
21 items used in the previous studies (see Appendix B).

#### 22 *7.4. Results*

23           To test H3, moderated serial mediation analysis was conducted using PROCESS Model 91  
24 with 10,000 bootstrap samples and wine familiarity included as a covariate (see Table 5). The  
25 overall index of moderated mediation was significant (effect = -0.02, 95% C.I. = -0.049 to -0.001).  
26 There was a significant negative effect of packaging format (0 = traditional, 1 = non-traditional)  
27 on product appeal ( $a_1 = -0.55$ ,  $p < .01$ ). The effect of product appeal on expected taste was  
28 conditional on the eco-friendly label ( $d_3 = 0.11$ ,  $p < .05$ ), where presence of the label ( $d_{Label} = 0.76$ ,  
29  $p < .001$ ) had a stronger influence on expected taste than the absence of a label ( $d_{No Label} = 0.66$ ,  $p$   
30  $< .001$ ). Expected taste had a significant positive effect on purchase intention ( $b_2 = 0.33$ ,  $p < .001$ ).  
31 The serial indirect effect of packaging format on purchase intention through product appeal and

1 expected taste was significant for both eco-friendly label conditions, but the effect was stronger  
2 for the label-present condition (estimate = -0.14, 95% C.I. = -0.272 to -0.040) than the label-absent  
3 condition (estimate = -0.12, 95% C.I. = -0.238 to -0.035). The direct effect of packaging format  
4 on purchase intention was not significant ( $c_1 = 0.09, p = .31$ ).

5 >>>>> **PLEASE INSERT TABLE 5 HERE** <<<<<<

## 6 **8. General discussion**

7 The growing prevalence of non-traditional packaging formats represents an important  
8 change in the beverage industry for producers, marketers, retailers, and consumers. The current  
9 research sought to answer three questions about non-traditional packaging formats: (1) how does  
10 a non-traditional wine package influence consumer purchase intention? (2) might the effect be  
11 different based on individual consumer traits? and (3) how can wine producers influence consumer  
12 purchase intention for wine sold in non-traditional packaging? The findings of five studies reveal  
13 an interesting pattern. First, the results demonstrate an indirect effect of packaging on purchase  
14 intention through product appeal and taste perceptions. Specifically, non-traditional packaging, in  
15 the form of an aluminum can (vs. traditional 750ml glass bottle), has a negative impact on  
16 consumer evaluations of product appeal, which leads to lower taste perceptions. In turn, taste  
17 perceptions have a positive effect on consumer purchase intentions, where lower taste perceptions  
18 lead to a lower purchase intention. This indirect effect was replicated in both a live tasting and an  
19 online taste rating context, suggesting the influence of non-traditional packaging extends to both  
20 actual taste perceptions and taste expectations. The indirect effect was also replicated when the  
21 packaging formats were expanded to include a range of traditional and non-traditional options,  
22 suggesting that as packaging becomes more incongruent with consumer expectations, it also  
23 becomes less appealing, which consequently influences taste expectations and purchase intention.  
24 Second, the findings also reveal that consumer DUP alters the indirect pathway, such that the serial  
25 indirect effect is attenuated for high-DUP consumers. Third, the findings reveal that the negative  
26 effects of product appeal on expected taste for non-traditional packaging are enhanced when an  
27 eco-friendly label is included in the package design. The results of this research offer valuable  
28 theoretical and practical implications, as well as opportunities for future research.

### 29 *8.1. Theoretical Implications*

30 Although focused on the specific domain of wine, the current research contributes to the  
31 general marketing literature on packaging, extrinsic product cues, and judgmental heuristics by

1 demonstrating that non-traditional packaging can have considerable effects on consumer  
2 perceptions and downstream behaviors. In particular, the results of Study 1A suggest that visual  
3 sensory inputs (e.g., the packaging) influence the gustatory sense of taste perceptions. This adds  
4 to the literature on cross-modal correspondence, which theorizes that consumers tend to associate  
5 an attribute in one sensory modality with an attribute in another sensory modality and indicates  
6 that visual cues usually dominate other sensory cues (Elder & Krishna, 2010; Lefebvre et al., 2022;  
7 Lefebvre & Orłowski, 2019; Simmonds & Spence, 2017).

8 By considering the entire physical package, this research also extends the extant literature  
9 on wine packaging, which has focused almost exclusively on the role of wine labels and bottle  
10 closures in consumer purchasing decisions (Bekkerman & Brester, 2019; Spence & Wang, 2017).  
11 While novel or non-traditional packaging has been shown to be important in other contexts in order  
12 to stand out and thereby gain consumers' attention, promote their trial, and ultimately encourage  
13 consumers to purchase the product (Radford & Bloch, 2011; Spence, 2016), the results of Study  
14 1A, Study 1B, and Study 2 collectively highlight that in the context of wine, a complex product,  
15 non-traditional packaging has the opposite effect.

16 Further extending this line of research leads to the third major contribution, which are the  
17 boundary conditions found for the serial mediation relationship. Study 3 considered the individual  
18 difference of consumer DUP as a moderator and found that while the indirect effect held for low-  
19 DUP consumers, meaning they responded negatively to the non-traditional packaging format, the  
20 effect was mitigated for high-DUP consumers. From the perspective of uniqueness theory and  
21 consumers' desire for unique products (Snyder, 1992; Tian et al., 2001), one possible explanation  
22 for this result is that the non-traditional format, while visually unconventional enough from the  
23 norm to induce a negative evaluation in low-DUP consumers, did not reach a minimal threshold  
24 of "uniqueness" for high-DUP consumers. Thus, for high-DUP consumers, there was no difference  
25 in the product appeal of the traditional package and the non-traditional package.

26 Notably, in Study 4, we found the presence of an eco-label enhanced the negative effects  
27 of product appeal on expected taste. This finding offers evidence for the "eco-penalty" effect,  
28 contrasting with recent literature concluding there is a positive shift in consumer attitudes towards  
29 eco-friendly wine labeling (Schäufele & Hamm, 2017) and recommending eco-labels as a means  
30 of product differentiation in the wine category (Lim & Reed, 2020). This result also differs from  
31 prior work theorizing that eco-labels only carry a penalty for wines perceived to be higher in

1 quality and/or price (Delmas & Lessem, 2017). Instead, our findings suggest that, in the context  
2 of wine and wine packaging, the question as to whether consumers value eco-friendliness and the  
3 associated benefits of eco-labeling is an area still in need of additional examination.

#### 4 *8.2. Practical Implications*

5 The results of these studies also offer relevant practical implications for wine producers,  
6 marketers, and retailers. While the findings suggest it would be advantageous for wine producers  
7 experimenting with attention-grabbing, non-traditional packaging formats to avoid straying too far  
8 from the traditional, other wine packaging innovations over the past two decades reveal that  
9 patience and perseverance may be rewarded. Perhaps the original form of “non-traditional”  
10 packaging in the wine category, screwcap (vs. cork) wine closures were originally seen as a mark  
11 of poor-quality wine and met with consumer resistance. However, in 2001 the New Zealand  
12 Screwcap Wine Seal initiative began to promote the benefits of screwcaps based on scientific  
13 research showing them to be superior to traditional corks. Now, while less than 10% of all wine  
14 bottles are sealed with a screwcap, over 90% of New Zealand wine bottles were sealed with  
15 screwcaps by 2020 (New Zealand Wine, 2020). This suggests that over time, other wine packaging  
16 innovations once viewed as non-traditional (such as cans) may also become more generally  
17 accepted by consumers. Thus, we also suggest that producers, marketers, and retailers introducing  
18 non-traditional wine packaging formats identify and develop strategies for promotion and  
19 education in order to convey the utility and convenience of such packaging to consumers. The  
20 canned wine format in particular has several benefits that should be exploited by marketers,  
21 including a reduced carbon footprint due to reduced weight (Ponstein et al., 2019), more rapid  
22 chilling, and appropriateness for situations where glass may be prohibited or undesirable (e.g.,  
23 poolside, picnic areas, etc.). Marketers can also promote the “single serving” aspect of the canned  
24 wine format as a means of portion control to health-conscious consumers seeking to limit or reduce  
25 their alcohol consumption.

#### 26 *8.3. Extensions for future research*

27 The findings of this research provide avenues for continued study. One avenue for future  
28 work is to explore cross-modal interactions, such as the interaction between the visual and haptic  
29 senses, and their influence on perceptions of quality, taste, and subsequent downstream behaviors.  
30 This would address a primary limitation of the current work, which is that participants did not  
31 touch the packaging. However, haptic properties have been shown to influence perceptions of wine

1 quality (Piqueras-Fiszman & Spence, 2012) and, in a realistic in-store purchase setting, the  
2 consumer would need to pick up the wine package in order to pay for it and take it with them.

3 As this research focused specifically on a single product category within the beverage  
4 segment, a second avenue for future research is to study non-traditional packaging formats across  
5 other beverage categories to determine whether the findings are generalizable beyond wine,  
6 particularly as it relates to the congruency of single-serve formats. For example, ready-to-drink  
7 cocktails and hard seltzers represent current, on-trend categories that compete with canned wine  
8 (McMillan, 2022).

9 A third avenue for future work is an examination of other differences across consumer  
10 segments. For example, as noted by Bonn et al. (2018), generational patterns and the purchasing  
11 behaviors of young wine consumers is an area in need of more study across many aspects of wine  
12 research and, as Millennials' spending power increases, they will continue to drive packaging  
13 trends (Castellini & Samoggia, 2018). Related to this, situational context is also a relevant  
14 extension of the current research. For example, whether a consumer is purchasing wine for solo  
15 consumption or to share with a group may impact the package format they choose, as could the  
16 location or event at which wine consumption is intended (e.g., at-home vs. special event; indoor  
17 vs. outdoor). Thus, demographic factors, in addition to other psychological traits, all offer  
18 interesting and fruitful opportunities for future research.

19 Lastly, this research focused on the packaging attribute of wine without the consideration  
20 of other economic decision-making factors such as price. Since price is often an important part of  
21 the purchase decision process, future research should attempt to investigate the interrelationship  
22 between price and packaging.

1 **References**

- 2 Amos, C., & Spears, N. (2010). Generating a visceral response. *Journal of Advertising*, 38(3), 25-  
3 38. <https://doi.org/10.2753/JOA0091-3367390302>
- 4 Bekkerman, A., & Brester, G.W. (2019). Don't judge a wine by its closure: Price premiums for  
5 corks in the U.S. wine market. *Journal of Wine Economics*, 14(1), 3-25.  
6 <https://doi.org/10.1017/jwe.2019.1>
- 7 Bonn, M.A., Cho, M., & Um, H. (2018). The evolution of wine research: A 26 year historical  
8 examination of topics, trends, and future direction. *International Journal of Contemporary*  
9 *Hospitality Management*, 30(1), 286-312. <https://doi.org/10.1108/IJCHM-09-2016-0521>
- 10 Castellini, A., & Samoggia, A. (2018). Millennial consumers' wine consumption and purchasing  
11 habits and attitude towards wine innovation. *Wine Economics and Policy*, 7, 128-139.  
12 <https://doi.org/10.1016/j.wep.2018.11.001>
- 13 Cavazzana, A., Larsson, M., Hoffmann, E., Hummel, T., & Haehner, A. (2017). The vessel's shape  
14 influences the smell and taste of cola. *Food Quality and Preference*, 59, 8–13.  
15 <https://doi.org/10.1016/j.foodqual.2017.01.014>
- 16 Celhay, F., & Remaud, H. (2018). What does your wine label mean to consumers? A semiotic  
17 investigation of Bordeaux visual wine codes. *Food Quality and Preference*, 65, 195-145.  
18 <https://doi.org/10.1016/j.foodqual.2017.10.020>
- 19 Chaney, I.M. (2000). External search effort for wine. *International Journal of Wine Marketing*,  
20 12(2), 5-21. <https://doi.org/10.1108/eb008706>
- 21 Charters, S., & Pettigrew, S. (2007). The dimensions of wine quality. *Food Quality and*  
22 *Preference*, 18(4), 997-1007. <https://doi.org/10.1016/j.foodqual.2007.04.003>
- 23 Cheskin, L. (1957). *How to predict what people will buy*. Liveright.
- 24 Cho, Y-N., & Baskin, E. (2018). It's a match when green meets healthy in sustainability labeling.  
25 *Journal of Business Research*, 86, 119-129. <https://doi.org/10.1016/j.jbusres.2018.01.050>
- 26 Delmas, M.A., & Grant, L.E. (2014). Eco-labeling strategies and price-premium: The wine  
27 industry puzzle. *Business & Society*, 53(1), 6-44.  
28 <https://doi.org/10.1177/0007650310362254>
- 29 Delmas, M.A., & Lessem, N. (2017). Eco-premium or eco-penalty? Eco-labels and quality in the  
30 organic wine market. *Business & Society*, 56(2), 318-356.  
31 <https://doi.org/10.1177/0007650315576119>
- 32 Donato, C., & D'Aniello, A. (2021). Tell me more and make me feel proud: The role of eco-labels  
33 and informational cues on consumers' food perceptions. *British Food Journal*. Advance  
34 online publication. <https://doi.org/10.1108/BFJ-04-2021-0416>

- 1 Donato, C., & Adigüzel, F. (2022). Visual complexity of eco-labels and product evaluations in  
2 online setting: Is simple always better? *Journal of Retailing and Consumer Services*, 67,  
3 102961. <https://doi.org/10.1016/j.jretconser.2022.102961>
- 4 Elder, R.S., & Krishna, A. (2010). The effects of advertising copy on sensory thoughts and  
5 perceived taste. *Journal of Consumer Research*, 36(5), 748-756.  
6 <https://doi.org/10.1086/605327>
- 7 Franke, N., & Schreier, M. (2008). Product uniqueness as a driver of customer utility in mass  
8 customization. *Marketing Letters*, 19, 93-107. <https://doi.org/10.1007/s11002-007-9029-7>
- 9 Garber Jr, L.L., Hyatt, E.M., & Nafees, L. (2016). The effects of food color on perceived flavor:  
10 A factorial investigation in India. *Journal of Food Products Marketing*, 22(8), 930-948.  
11 <https://doi.org/10.1080/10454446.2014.885864>
- 12 García-Madariaga, J., López, M.F.B., Burgos, I.M., & Virto, N.R. (2019). Do isolated packaging  
13 variables influence consumers' attention and preferences?. *Physiology & Behavior*, 200,  
14 96-103. <https://doi.org/10.1016/j.physbeh.2018.04.030>
- 15 Gmuer, A., Siegrist, M., & Dohle, S. (2015). Does wine label processing fluency influence wine  
16 hedonics?. *Food Quality and Preference*, 44, 12-16.  
17 <https://doi.org/10.1016/j.foodqual.2015.03.007>
- 18 Gorton, M., Tocco, B., Yeh, C-H., & Hartmann, M. (2021). What determines consumers' use of  
19 eco-labels? Taking a close look at label trust. *Ecological Economics*, 189, 107173.  
20 <https://doi.org/10.1016/j.ecolecon.2021.107173>
- 21 Grand View Research. (2021A). *Canned wines market size, share & trends analysis report by  
22 product, by distribution channel, by region, and segment forecasts, 2021-2018.*  
23 <https://www.grandviewresearch.com/industry-analysis/canned-wines-market>
- 24 Grand View Research. (2021B). *Wines market size, share & trends analysis report by product, by  
25 distribution channel, by region, and segment forecasts, 2021-2018.*  
26 <https://www.grandviewresearch.com/industry-analysis/wine-market>
- 27 Favier, M., Celhay, F., & Pantin-Sohier, G. (2019). Is less more or a bore? Package design  
28 simplicity and brand perception: An application to Champagne. *Journal of Retailing and  
29 Consumer Services*, 46, 11-20. <https://doi.org/10.1016/j.jretconser.2018.09.013>
- 30 Hagen, L. (2021). Pretty healthy food: How and when aesthetics enhance perceived healthiness.  
31 *Journal of Marketing*, 85(2), 129-145. <https://doi.org/10.1177/0022242920944384>.
- 32 Hayes, A. (2017). *Introduction to mediation, moderation, and conditional process analysis: A  
33 regression-based approach* (2<sup>nd</sup> ed.). The Guilford Press.
- 34 Hollins, B., & Pugh, S. (1990). *Successful product design: What to do and when*. Butterworth.

- 1 Jang, S.S., & Kim, D. (2015). Enhancing ethnic food acceptance and reducing perceived risk: The  
2 effects of personality traits, cultural familiarity, and menu framing. *International Journal*  
3 *of Hospitality Management*, 47, 85-95. <https://doi.org/10.1016/j.ijhm.2015.03.011>
- 4 Jaud, D.A., & Melnyk, V. (2020). The effect of text-only versus text-and-image wine labels on  
5 liking, taste and purchase intentions. The mediating role of affective fluency. *Journal of*  
6 *Retailing and Consumer Services*, 53, 101964.  
7 <https://doi.org/10.1016/j.jretconser.2019.101964>
- 8 Johnston, N., & Velikova, N. (2017). *Millennial Wine Consumers: Attitudes Towards Alternative*  
9 *Wine Packaging*. Texas Wine Marketing Research Institute, Texas Tech University.  
10 [https://www.depts.ttu.edu/hs/texaswine/docs/Final\\_Alternative\\_Packaging.pdf](https://www.depts.ttu.edu/hs/texaswine/docs/Final_Alternative_Packaging.pdf)
- 11 Kelley, K., Bruwer, J., Zelinskie, J., Gardner, D., Govindasamy, R., Hyde, J., & Rickard, B. (2020).  
12 Wine consumers' willingness to adopt environmentally friendly packaging practices at  
13 tasting rooms: An ECHAID analysis. *British Food Journal*, 122(1), 309-327.  
14 <https://doi.org/10.1108/BFJ-04-2019-0229>
- 15 Krishna, A., & Morrin, M. (2008). Does touch affect taste? The perceptual transfer of product  
16 container haptic cues. *Journal of Consumer Research*, 34(6), 807-818.  
17 <https://doi.org/10.1086/523286>
- 18 Landwehr, J.R., Wentzel, D., & Herrmann, A. (2013). Product design for the long run: Consumer  
19 responses to typical and atypical designs at different stages of exposure. *Journal of*  
20 *Marketing*, 77(5), 92-107. <https://doi.org/10.1509%2Fjm.11.0286>
- 21 Lee, Y., Ho, F.N., & Wu, M-C. (2018). How do form and functional newness affect adoption  
22 preference? The moderating role of consumer need for uniqueness. *Journal of Consumer*  
23 *Marketing*, 35(1), 79-90. <https://doi.org/10.1108/JCM-10-2015-1578>
- 24 Lee, Y., & O'Connor, G. (2003). The impact of communication strategies on launching new  
25 products: The moderating role of product innovativeness. *Journal of Product Innovation*  
26 *Management*, 20(1), 4-21. <https://doi.org/10.1108/JCM-10-2015-1578>
- 27 Lefebvre, S., Hasford, J., & Boman, L. (2022). Less light, better bite: How ambient lighting  
28 influences taste perceptions. *Journal of Retailing and Consumer Services*, 65, 102732.  
29 <https://doi.org/10.1016/j.jretconser.2021.102732>
- 30 Lefebvre, S., & Orłowski, M. (2019). Can, cup, or bottle? The influence of beverage vessel on  
31 taste and willingness to pay. *International Journal of Hospitality Management*, 76, 194-  
32 205. <https://doi.org/10.1016/j.ijhm.2018.05.009>
- 33 Lick, E., König, B., Kpossa, M.R., & Buller, V. (2017). Sensory expectations generated by colours  
34 of red wine labels. *Journal of Retailing and Consumer Services*, 37, 146-158.  
35 <https://doi.org/10.1016/j.jretconser.2016.07.005>



- 1 Lim, K.H., & Reed, M. (2020). Do ecolabels cheapen wines?. *Journal of Cleaner Production*, 245,  
2 118696. <https://doi.org/10.1016/j.jclepro.2019.118696>
- 3 Liu, F., Zhu, Z., Chen, H. A., & Li, X. (2020). Beauty in the eyes of its beholders: Effects of design  
4 novelty on consumer preference. *Journal of Retailing and Consumer Services*, 53, 101969.  
5 <https://doi.org/10.1016/j.jretconser.2019.101969>
- 6 Lockshin, L., & Corsi, A.M. (2012). Consumer behaviour for wine 2.0: A review since 2003 and  
7 future directions. *Wine Economics and Policy*, 1(1), 2-23.  
8 <https://dx.doi.org/10.1016/j.wep.2012.11.003>
- 9 Loose, S.M., & Remaud, H. (2013). Impact of corporate social responsibility claims on consumer  
10 food choice: A cross-cultural comparison. *British Food Journal*, 115(1), 142-161.  
11 <https://doi.org/10.1108/00070701311289920>
- 12 Lynn, M., & Harris, J. (1997). The desire for unique consumer products: A new individual  
13 differences scale. *Psychology & Marketing*, 14(6), 601-616.  
14 [https://doi.org/10.1002/\(SICI\)1520-6793\(199709\)14:6%3C601::AID-](https://doi.org/10.1002/(SICI)1520-6793(199709)14:6%3C601::AID-)  
15 [MAR5%3E3.0.CO;2-B](https://doi.org/10.1002/(SICI)1520-6793(199709)14:6%3C601::AID-MAR5%3E3.0.CO;2-B)
- 16 MacDonald, J.B., Saliba, A.J., & Bruwer, J. (2013). Wine choice and drivers of consumption  
17 explored in relation to generational cohorts and methodology. *Journal of Retailing and*  
18 *Consumer Services*, 20(3), 349-357. <https://doi.org/10.1016/j.jretconser.2013.01.013>
- 19 McMillan, R. (2022). *State of the U.S. Wine Industry 2022*. SVB Financial Group.  
20 <https://www.svb.com/globalassets/trendsandinsights/reports/wine/svb-state-of-the-wine->  
21 [industry-report-2022.pdf](https://www.svb.com/globalassets/trendsandinsights/reports/wine/svb-state-of-the-wine-industry-report-2022.pdf)
- 22 Mueller, S., Lockshin, L., Saltman, Y., & Blanford, J. (2010). Message on a bottle: The relative  
23 influence of wine back label information on wine choice. *Food Quality and Preference*,  
24 21(1), 22-32. <https://doi.org/10.1016/j.foodqual.2009.07.004>
- 25 Mueller, S., & Szolnoki, G. (2010). The relative influence of packaging, labelling, branding and  
26 sensory attributes on liking and purchase intent: Consumers differ in their responsiveness.  
27 *Food Quality and Preference*, 21(7), 774-783.  
28 <https://doi.org/10.1016/j.foodqual.2010.07.011>
- 29 Mugge, R., & Dahl, D.W. (2013). Seeking the ideal level of design newness: Consumer response  
30 to radical and incremental product design. *Journal of Product Innovation Management*,  
31 30(S1), 34-47. <https://doi.org/10.1111/jpim.12062>
- 32 Mugge, R., & Schoormans, J.P. (2012). Newer is better! The influence of a novel appearance on  
33 the perceived performance quality of products. *Journal of Engineering Design*, 23(6), 469-  
34 484. <https://doi.org/10.1080/09544828.2011.618802>
- 35 Mukherjee, A., & Hoyer, W.W. (2001). The effect of novel attributes on product evaluation.  
36 *Journal of Consumer Research*, 28(3), 462-472. <https://doi.org/10.1086/323733>

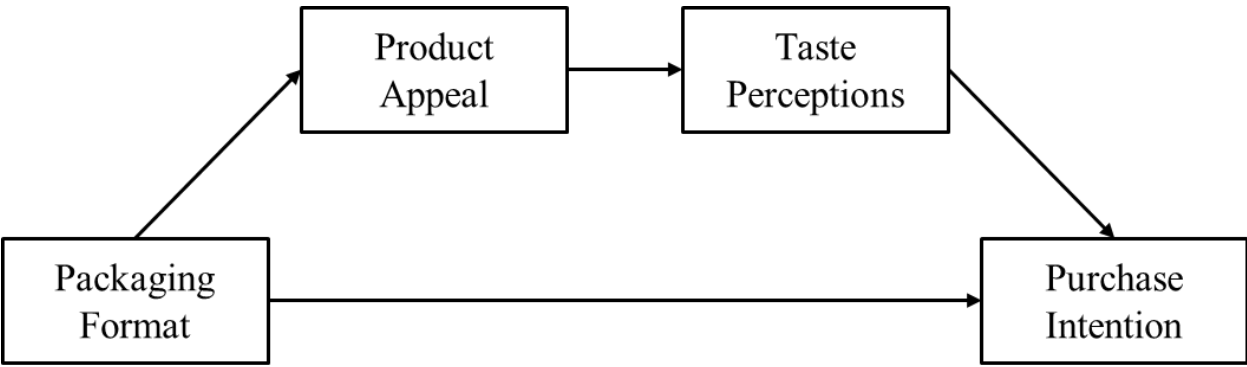
- 1 Nesselhauf, L., Decker, J.S., & Fleuchaus, R. (2017). Information and involvement: The influence  
2 on the acceptance of innovative wine packaging. *International Journal of Wine Business*  
3 *Research*, 29(3), 285-298. <https://doi.org/10.1108/IJWBR-08-2016-0026>
- 4 New Zealand Wine. (2020). *Kiwi ingenuity in the NZ wine industry*. Retrieved from  
5 <https://www.nzwine.com/en/media/story/innovation/>. Accessed January 28, 2021.
- 6 Olson, J.C., & Jacoby, J. (1972). Cue utilization in the quality perception process. In M.  
7 Venkatesan (Ed.), *Proceedings of the Third Annual Conference of the Association for*  
8 *Consumer Research* (pp. 167-179), Association for Consumer Research.  
9 <https://www.acrwebsite.org/assets/PDFs/Proceedings/NAACR3rdannual.pdf>
- 10 Pancer, E., McShane, L., & Noseworthy, T.J. (2017). Isolated environmental cues and product  
11 efficacy penalties: The color green and eco-labels. *Journal of Business Ethics*, 143(1), 159-  
12 177. <https://doi.org/10.1007/s10551-015-2764-4>
- 13 Pelet, J-E., Durrieu, F., & Lick, E. (2020). Label design of wines sold online: Effects of perceived  
14 authenticity on purchase intentions. *Journal of Retailing and Consumer Services*, 55,  
15 102087. <https://doi.org/10.1016/j.jretconser.2020.102087>
- 16 Piqueras-Fiszman, B., & Spence, C. (2012). The weight of the bottle as a possible extrinsic cue  
17 with which to estimate the price (and quality) of the wine? Observed correlations. *Food*  
18 *Quality and Preference*, 25(1), 41-45. <https://doi.org/10.1016/j.foodqual.2012.01.001>
- 19 Piqueras-Fiszman, B., & Spence, C. (2015). Sensory expectations based on product-extrinsic food  
20 cues: An interdisciplinary review of the empirical evidence and theoretical accounts. *Food*  
21 *Quality and Preference*, 40, 165-179. <https://doi.org/10.1016/j.foodqual.2014.09.013>
- 22 Pleyers, G. (2021). Shape congruence in product design: Impacts on automatically activated  
23 attitudes. *Journal of Retailing and Consumer Services*, 61, 101935.  
24 <https://doi.org/10.1016/j.jretconser.2019.101935>
- 25 Ponstein, H.J., Ghinoi, S., & Steiner, B. (2019). How to increase sustainability in the Finnish wine  
26 supply chain? Insights from a country of origin based greenhouse gas emissions analysis.  
27 *Journal of Cleaner Production*, 226, 768-780.  
28 <https://doi.org/10.1016/j.jclepro.2019.04.088>
- 29 Radford, S.K., & Bloch, P.H. (2011). Linking innovation to design: Consumer responses to visual  
30 product newness. *Journal of Product Innovation Management*, 28(S1), 208-220.  
31 <https://doi.org/10.1111/j.1540-5885.2011.00871.x>
- 32 Rao, A.R., & Monroe, K.B. (1988). The moderating effect of prior knowledge on cue utilization  
33 in product evaluations. *Journal of Consumer Research*, 15(2), 253-264.  
34 <https://doi.org/10.1086/209162>

- 1 Schäufele, I., & Hamm, U. (2017). Consumers' perceptions, preferences and willingness-to-pay  
2 for wine with sustainability characteristics: A review. *Journal of Cleaner Production*, 147,  
3 379-394. <https://doi.org/10.1016/j.jclepro.2017.01.118>
- 4 Simmonds, G., & Spence, C. (2017). Thinking inside the box: How seeing products on, or through,  
5 the packaging influences consumer perceptions and purchase behaviour. *Food Quality and*  
6 *Preference*, 62, 340-351. <https://doi.org/10.1016/j.foodqual.2016.11.010>
- 7 Snyder, C.R. (1992). Product scarcity by need for uniqueness interaction: A consumer catch-22  
8 carousel?. *Basic and Applied Social Psychology*, 13(1), 9-24.  
9 [https://doi.org/10.1207/s15324834basp1301\\_3](https://doi.org/10.1207/s15324834basp1301_3)
- 10 Spence, C. (2016). Multisensory packaging design: Color, shape, texture, sound, and smell. In M.  
11 Chen & P. Burgess (Eds.), *Integrating the packaging and product experience in food and*  
12 *beverages: A route to customer satisfaction* (pp. 1-22). Elsevier.
- 13 Spence, C. (2020). Wine psychology: Basic & applied. *Cognitive Research: Principles and*  
14 *Implications*, 5, 1-18. <https://doi.org/10.1186/s41235-020-00225-6>
- 15 Spence, C., & Wang, Q. J. (2017). Assessing the impact of closure type on wine ratings and mood.  
16 *Beverages*, 3(4), 52. <https://doi.org/10.3390/beverages3040052>
- 17 Taufique, K.M.R., Siwar, C., Talib, B., Sarah, F.H., & Chamhuri, N. (2014). Synthesis of  
18 constructs for modeling consumers' understanding and perception of eco-labels.  
19 *Sustainability*, 6(4), 2176-2200. <https://doi.org/10.3390/su6042176>
- 20 Thompson-Witrick, K.A., Pitts, E.R., Nemenyi, J.L., & Budner, D. (2021). The impact packaging  
21 type has on the flavor of wine. *Beverages*, 7(2), 36.  
22 <https://doi.org/10.3390/beverages7020036>
- 23 Tian, K.T., Bearden, W.O., & Hunter, G.L. (2001). Consumers' need for uniqueness: Scale  
24 development and validation. *Journal of Consumer Research*, 28(1), 50-66.  
25 <https://doi.org/10.1086/321947>
- 26 Van Esch, P., Heller, J., & Northey, G. (2019). The effects of inner packaging color on the  
27 desirability of food. *Journal of Retailing and Consumer Services*, 50, 94-102.  
28 <https://doi.org/10.1016/j.jretconser.2019.05.003>
- 29 Van Rompay, T.J., & Pruyn, A.T. (2011). When visual product features speak the same language:  
30 Effects of shape-typeface congruence on brand perception and price expectations. *Journal*  
31 *of Product Innovation Management*, 28(4), 599-610. [https://doi.org/10.1111/j.1540-](https://doi.org/10.1111/j.1540-5885.2011.00828.x)  
32 [5885.2011.00828.x](https://doi.org/10.1111/j.1540-5885.2011.00828.x)
- 33 Wang, Q.J., & Spence, C. (2019). Drinking through rosé-coloured glasses: Influence of wine  
34 colour on the perception of aroma and flavour in wine experts and novices. *Food Research*  
35 *International*, 126. <https://doi.org/10.1016/j.foodres.2019.108678>.

1 Youn, H., & Kim, J.H. (2017). Effects of ingredients, names and stories about food origins on  
2 perceived authenticity and purchase intentions. *International Journal of Hospitality*  
3 *Management*, 63, 11-21. <https://doi.org/10.1016/j.ijhm.2017.01.002>

4 Zellner, D.A., Loss, C.R., Zearfoss, J., & Remolina, S. (2014). It tastes as good as it looks! The  
5 effect of food presentation on liking for the flavor of food. *Appetite*, 77C, 31-35.  
6 <https://doi.org/10.1016/j.appet.2014.02.009>

7



**Figure 1.** Serial Mediation Model  
**Notes:** Tested via Studies 1A, 1B, and 2

**Table 1.** Study 1A serial mediation analysis results

	<b>Coefficient</b>	<b>SE</b>	<b>t</b>	<b>p-value</b>	<b>95% C.I.</b>
<b>Product Appeal (PA)</b>					
Constant	4.831	0.319	15.159	<0.001	4.198, 5.464
Packaging format	-0.169	0.069	-2.439	0.017	-0.307, -0.031
Wine familiarity	0.080	0.068	1.166	0.247	-0.056, 0.215
<b>Taste (T)</b>					
Constant	2.055	0.501	4.103	<0.001	1.060, 3.049
Packaging format	0.039	0.060	0.657	0.513	-0.080, 0.159
Product appeal	0.510	0.088	5.813	0.000	0.336, 0.684
Wine familiarity	0.057	0.058	0.990	0.325	-0.057, 0.171
<b>Purchase Intention (PI)</b>					
Constant	-2.960	0.705	-4.199	<0.001	-4.361, -1.559
Packaging format	0.091	0.078	1.171	0.245	-0.063, 0.254
Product appeal	0.446	0.133	3.351	0.001	0.181, 0.710
Taste	0.993	0.136	7.293	<0.001	0.723, 1.264
Wine familiarity	0.056	0.075	0.743	0.459	-0.093, 0.204
<b>Indirect Effects</b>					
	<b>Effect</b>	<b>BootSE</b>	<b>BootLLCI</b>	<b>BootULCI</b>	<b>Significant?</b>
Packaging → PA → PI	-0.075	0.041	-0.171	-0.011	Yes
Packaging → T → PI	0.039	0.060	-0.078	0.160	No
Packaging → PA → T → PI	-0.086	0.042	-0.175	-0.015	Yes

*Note:* PROCESS Model 6, 10000 bootstrap samples

**Table 2.** Study 1B serial mediation analysis results

	<b>Coefficient</b>	<b>SE</b>	<b>t</b>	<b>p-value</b>	<b>95% C.I.</b>
<b>Product Appeal (PA)</b>					
Constant	3.273	0.709	4.620	<0.001	1.865, 4.681
Packaging format	-0.691	0.342	-2.022	0.046	-1.369, -0.012
Wine familiarity	0.492	0.112	4.385	<0.001	0.269, 0.715
<b>Expected Taste (ET)</b>					
Constant	1.012	0.350	2.891	0.005	0.316, 1.708
Packaging format	-0.136	0.155	-0.882	0.380	-0.444, 0.171
Product appeal	0.710	0.048	14.960	<0.001	0.616, 0.805
Wine familiarity	0.113	0.055	2.065	0.042	0.004, 0.222
<b>Purchase Intention (PI)</b>					
Constant	0.052	0.390	0.134	0.894	-0.724, 0.828
Packaging format	-0.129	0.165	-0.781	0.437	-0.458, 0.200
Product appeal	0.583	0.096	6.086	<0.001	0.393, 0.774
Expected taste	0.420	0.115	3.657	<0.001	0.192, 0.648
Wine familiarity	0.049	0.060	0.821	0.414	-0.070, 0.168
<b>Indirect Effects</b>					
	<b>Effect</b>	<b>BootSE</b>	<b>BootLLCI</b>	<b>BootULCI</b>	<b>Significant?</b>
Packaging → PA → PI	-0.403	0.208	-0.837	-0.028	Yes
Packaging → ET → PI	-0.057	0.072	-0.214	0.073	No
Packaging → PA → ET → PI	-0.206	0.114	-0.456	-0.012	Yes

*Note:* PROCESS Model 6, 10000 bootstrap samples

**Table 3.** Study 2 serial mediation analysis results

	<b>Effect</b>	<b>SE</b>	<b>t</b>	<b>p-value</b>	<b>95% C.I.</b>
<b>Product Appeal (PA)</b>					
Constant	4.269	0.299	14.263	<.001	3.680, 4.857
Miniature Bottle	-0.242	0.254	-0.955	0.340	-0.742, 0.257
Aluminum Bottle	-0.496	0.250	-1.989	0.047	-0.987, -0.006
Can	-0.701	0.251	-2.799	0.005	-1.194, -0.209
Familiarity	0.227	0.057	3.991	<.001	0.115, 0.339
<b>Expected Taste (ET)</b>					
Constant	1.588	0.157	10.091	<.001	1.278, 1.897
Miniature Bottle	-0.022	0.107	-0.210	0.834	-0.232, 0.188
Aluminum Bottle	-0.154	0.105	-1.463	0.144	-0.361, 0.053
Can	-0.003	0.106	-0.029	0.977	-0.212, 0.206
Product Appeal	0.652	0.022	29.389	<.001	0.608, 0.696
Familiarity	0.058	0.024	2.387	0.018	0.010, 0.106
<b>Purchase Intention (PI)</b>					
Constant	-0.975	0.220	-4.428	<.001	-1.408, -0.542
Miniature Bottle	0.250	0.132	1.900	0.058	-0.009, 0.510
Aluminum Bottle	0.037	0.130	0.281	0.779	-0.220, 0.293
Can	0.243	0.131	1.850	0.065	-0.015, 0.501
Product Appeal	0.697	0.051	13.759	<.001	0.597, 0.797
Taste	0.271	0.065	4.145	<.001	0.142, 0.399
Familiarity	0.145	0.030	4.760	<.001	0.085, 0.205
<b>Direct Effect</b>					
Miniature Bottle	0.250	0.132	1.900	0.058	-0.009, 0.510
Aluminum Bottle	0.037	0.130	0.281	0.779	-0.220, 0.293
Can	0.243	0.1313	1.850	0.065	-0.015, 0.501
<b>Indirect Effect</b>					
<b>PF → PA → PI</b>	<b>Effect</b>	<b>Boot SE</b>	<b>Boot LLCI</b>	<b>Boot ULCI</b>	<b>Significant?</b>
Miniature Bottle	-0.169	0.156	-0.482	-0.130	No
Aluminum Bottle	-0.346	0.172	-0.684	-0.002	Yes
Can	-0.489	0.173	-0.831	-0.152	Yes
<b>Indirect Effect</b>					
<b>PF → ET → PI</b>	<b>Effect</b>	<b>Boot SE</b>	<b>Boot LLCI</b>	<b>Boot ULCI</b>	<b>Significant?</b>
Miniature Bottle	-0.006	0.027	-0.058	0.052	No
Aluminum Bottle	-0.042	0.031	-0.106	0.013	No
Can	-0.001	0.032	-0.067	0.061	No
<b>Indirect Effect</b>					
<b>PF → PA → ET → PI</b>	<b>Effect</b>	<b>Boot SE</b>	<b>Boot LLCI</b>	<b>Boot ULCI</b>	<b>Significant?</b>
Miniature Bottle	-0.043	0.042	-0.134	0.033	No
Aluminum Bottle	-0.088	0.049	-0.194	-0.001	Yes
Can	-0.124	0.055	-0.246	-0.033	Yes

**Notes:** PROCESS Model 6, 10,000 bootstrapped samples, Reference group is “Traditional 750ml Bottle”



**Table 4.** Study 3 moderated serial mediation analysis results

	<b>Coefficient</b>	<b>SE</b>	<b>t</b>	<b>p-value</b>	<b>95% C.I.</b>
<b>Product Appeal (PA)</b>					
Constant	4.839	1.291	3.749	<0.001	2.289, 7.389
Packaging format (PF)	-2.365	0.800	-2.957	0.004	-3.946, -0.785
Desire for unique products (DUP)	-0.052	0.269	-0.195	0.846	-0.583, 0.478
PF x DUP	0.394	0.170	2.313	0.022	0.058, 0.730
Wine familiarity	0.202	0.098	2.072	0.040	0.009, 0.394
<i>Conditional Effects of Packaging Format on Product Appeal at levels of DUP</i>					
@ Low DUP	-1.184	0.347	-3.412	<0.001	-1.869, -0.499
@ Moderate DUP	-0.544	0.238	-2.284	0.024	-1.015, -0.074
@ High DUP	-0.003	0.350	-0.007	0.994	-0.694, 0.689
<b>Expected Taste (ET)</b>					
Constant	0.953	0.293	3.258	0.001	0.375, 1.531
Packaging format	-0.079	0.114	-0.697	0.487	-0.304, 0.145
Product appeal	0.748	0.034	22.126	<0.001	0.682, 0.815
Wine familiarity	0.055	0.045	1.231	0.220	-0.033, 0.143
<b>Purchase Intention (PI)</b>					
Constant	-0.310	0.336	-0.924	0.357	-0.973, 0.353
Packaging format	-0.068	0.126	-0.535	0.594	-0.317, 0.182
Product appeal	0.483	0.076	6.328	<0.001	0.332, 0.634
Expected taste	0.496	0.089	5.576	<0.001	0.320, 0.671
Wine familiarity	0.111	0.050	2.237	0.027	0.013, 0.209
	<b>Effect</b>	<b>BootSE</b>	<b>BootLLCI</b>	<b>BootULCI</b>	<b>Significant?</b>
<i>Conditional Serial Indirect Effects (PF → PA → ET → PI) at levels of DUP</i>					
<b>Indirect Effects</b>					
@ Low DUP	-0.439	0.186	-0.854	-0.124	Yes
@ Moderate DUP	-0.202	0.094	-0.399	-0.036	Yes
@ High DUP	-0.001	0.110	-0.217	0.222	No
<b>Index of Moderated Mediation</b>					
Desire for unique products	0.146	0.078	0.011	0.315	Yes
<i>Conditional Indirect Effects (PF → PA → PI) at levels of DUP</i>					
<b>Indirect Effects</b>					
@ Low DUP	-0.572	0.217	-1.032	-0.178	Yes
@ Moderate DUP	-0.263	0.113	-0.499	-0.052	Yes
@ High DUP	-0.001	0.143	-0.282	0.289	No
<b>Index of Moderated Mediation</b>					
Desire for unique products	0.190	0.094	0.016	0.388	Yes
<i>Conditional Indirect Effects (PF → ET → PI) at levels of DUP</i>					
<b>Index of Moderated Mediation</b>					
Desire for unique products	-0.039	0.061	-0.159	0.083	No

*Note:* PROCESS Model 83, 10000 bootstrap samples, Moderator values for conditional effects are at the 16<sup>th</sup>, 50<sup>th</sup>, and 84<sup>th</sup> percentiles

**Table 5.** Study 4 moderated serial mediation analysis results

	<b>Coefficient</b>	<b>SE</b>	<b>t</b>	<b>p-value</b>	<b>95% C.I.</b>
<b>Product Appeal (PA)</b>					
Constant	5.500	0.348	15.818	<0.001	4.814, 6.181
Packaging format (PF)	-0.551	0.184	-2.996	0.003	-0.913, -0.189
Wine Familiarity	-0.060	0.068	-0.889	0.374	-0.193, 0.073
<b>Expected Taste (ET)</b>					
Constant	2.060	0.225	9.155	<0.001	1.617, 2.502
Packaging format	-0.142	0.077	-1.838	0.067	-0.294, 0.010
Product appeal	0.656	0.032	20.760	<0.001	0.594, 0.718
Eco-Friendly Label (EL)	-0.696	0.234	-2.976	0.003	-1.156, -0.236
PA*EL	0.105	0.045	2.333	0.020	0.016, 0.193
Wine familiarity	-0.020	0.028	-0.724	0.470	-0.076, 0.035
<i>Conditional Effects</i>					
<i>EL - Absent</i>	0.656	0.032	20.760	<0.001	0.594, 0.718
<i>EL - Present</i>	0.761	0.032	23.556	<0.001	0.697, 0.824
<b>Purchase Intention (PI)</b>					
Constant	-0.672	0.230	-2.926	0.004	-1.124, -0.220
Packaging format	0.086	0.084	1.023	0.307	-0.079, 0.252
Product appeal	0.704	0.049	14.525	<0.001	0.609, 0.800
Expected taste	0.333	0.059	5.666	<0.001	0.218, 0.449
Wine familiarity	0.042	0.031	1.375	0.170	-0.018, 0.102
	<b>Effect</b>	<b>BootSE</b>	<b>BootLLCI</b>	<b>BootULCI</b>	<b>Significant?</b>
<b>Indirect Effects</b>					
PF → PA → PI	-0.388	0.130	-0.645	-0.133	Yes
PF → ET → PI	-0.047	0.028	-0.106	0.003	No
<i>Conditional Indirect Effects (PF → PA → ET → PI) at levels of EL</i>					
<b>Indirect effects</b>					
<i>EL - Absent</i>	-0.121	0.052	-0.238	-0.035	Yes
<i>EL - Present</i>	-0.140	0.060	-0.272	-0.040	Yes
<b>Index of Moderated Mediation</b>					
Eco-Friendly Label	-0.019	0.013	-0.049	-0.001	Yes

*Note:* PROCESS Model 91, 10000 bootstrap samples

Appendix A.

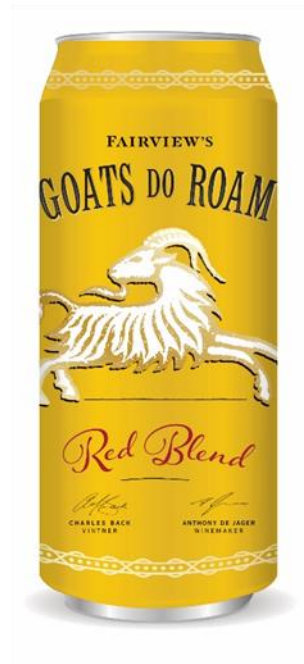


Figure A1. Study 1B and Study 3 stimuli

## Appendix B.

**Table B1.** Study measures

Purpose	Measure	Studies	Items	Response Scale
Pre-Test	Traditionality	Study 1A Study 2	1. Compared to a standard bottle of wine, how traditional is the wine packaging you reviewed? 2. The packaging of wine I reviewed is:	1 = Very traditional 7 = Not at all traditional
Covariate	Familiarity	All studies and pre-tests	1. How familiar are you with wine in general?	1 = Not at all 7 = Very much
Focal Measure	Purchase Intention	All studies	1. How likely are you to purchase this wine?*	*1 = Not at all likely
			2. How likely are you to drink this wine?*	*7 = Very likely
			3. How would you rate your willingness to try this wine? I am willing to try this wine.**	**1 = Strongly agree
			4. There is likelihood that I would like to try this wine.**	**7 = Strongly disagree
Focal Measure	Product Appeal	All studies	1. The product you reviewed is appealing. 2. The product you reviewed is desirable. 3. The product you reviewed is attractive.	1 = Strongly agree 7 = Strongly disagree
Focal Measure	Taste/Taste Expectations	Taste: 1A	1. How would you rate the taste of the wine?/ How do you expect the wine to taste?	1 = Very bad; 7 = Very good
		Taste Expectations: 1B, 2, 3, 4	2. How flavorful would you rate the wine?/ How flavorful do you expect the wine to be?	1 = Not at all flavorful; 7 = Very flavorful
			3. How delicious is the wine?/ How delicious do you expect the wine to be?	1 = Not at all delicious; 7 = Very delicious
Moderator	Uniqueness	Study 3	1. I am very attracted to rare objects. 2. I tend to be a fashion leader rather than a fashion follower. 3. I am more likely to buy a product if it is scarce. 4. I would prefer to have things custom-made than to have them ready-made. 5. I enjoy having things that others do not. 6. I rarely pass up the opportunity to order custom features on the products I buy. 7. I like to try new goods and services before others do. 8. I enjoy shopping at stores that carry merchandise which is different and unusual.	1 = Strongly agree 7 = Strongly disagree

Appendix C.



Figure C1. Study 2 stimuli

Appendix D.



Figure D1. Study 4 stimuli