

Ithaca 2018 Abstract Submission

Title

Fine Water: A Blind Taste Test

I want to submit an abstract for:

Conference Presentation

Corresponding Author

Kevin Capehart

E-Mail

kcapehart@mail.fresnostate.edu

Affiliation

California State University, Fresno

Co-Author/s

Name	E-Mail	Affiliation
Elena Berg	eberg@aup.edu	The American University of Paris, France

Keywords

bottled water, tap water, blind tasting

Research Question

Can consumers tell the difference between different brands of bottled water and, if so, do they prefer some to others?

Methods

We recruited over 100 subjects to participate in a double-blind tasting of bottled waters. The tasting was modeled on previous taste tests of beer, wine, and other beverages.

Results

The main results of our water tasting were generally similar to results from previous taste tests of beer, wine, and other beverages.

Abstract

Not all wines are the same. Some undoubtedly taste, look, and smell different. Yet blind taste tests suggest that novice and even expert wine tasters can have trouble distinguishing different wines. Similar results have been found for different beers. Given those results for other beverages, it seems dubious that consumers can tell the difference between different bottled waters, which even a self-styled "water connoisseur" admits have subtler taste differences than wine, no visual differences among still waters, and no odor differences. That suspicion is supported by a study in the *Journal of Wine Economics* [Capehart, K.W. "Fine Water: A Hedonic Pricing Approach," *Journal of Wine Economics*, Vol. 10, No. 2, 2015, pp. 129-150], which used a hedonic pricing approach to show that objective characteristics of the water inside a bottled water—such as the amount of carbonation and various minerals—explained little if any of the price differences between a wide variety of bottled waters. A possible explanation for that finding is that consumers either cannot tell the difference between the water inside different bottled waters or they are indifferent between any discernible differences.

The claim that not all bottled waters are the same has nevertheless been made as the industry continues to expand and as bottled waters are increasingly treated with the same sophistication—or perhaps snobbery—as wine. As an example of its sophisticated treatment, there are guidebooks to bottled water akin to wine guides. One such book, written by the expert mentioned above, is entitled "Fine Water: A Connoisseur's Guide to the World's Most Distinctive Bottled Waters." As another example, some restaurants have "water menus" akin to wine menus. Ray's and Stark Bar in Los Angeles, California, has a 45-page water menu with 20 different brands of bottled water selected by the "water sommelier" Martin Riese, who also hosts informal water tastings at the restaurant for paying guests and the media. As a final example, formal water competitions akin to wine competitions are held. The Berkeley Springs International Water Tasting held annually in the town of Berkeley Springs, West Virginia, crowns the world's best bottled water based on a blind tasting.

The finding in Capehart (2015) is only suggestive, so to test whether consumers can actually tell the difference between different bottled waters and, if so, whether they prefer some to others, we recruited over 100 subjects to participate in a double-blind taste test. Our subjects were novice water tasters, so before the blind tasting, we gave them a brief training similar to an informal tasting organized by Riese at his restaurant. The brands of bottled water our subjects tasted for their training, as well as the ones they tasted blind, were from that restaurant's water menu and the Fine Waters guidebook. The blind tasting involved three experiments modeled on informal tastings by Riese, the formal Berkeley Springs tasting, and previous taste tests of water and other beverages. The first experiment was a sensory discrimination test used to assess whether our subjects could tell the difference between different bottled waters. In the second test, subjects rated bottled waters, as well as tap water for comparison, by using the same 14-point scale used at the Berkeley Springs tasting. For the final test, subjects tried to distinguish tap from bottled water while matching expert descriptions to bottled waters.

Our main findings were as follows. We found that our trained subjects were better at distinguishing different brands of bottled waters than would be expected by chance alone, but only slightly better; they were unable to distinguish different brands of bottled water more often than not. That was the case despite the fact we served them bottled waters that a water sommelier selected for his restaurant's water menu and that a water connoisseur included in his guidebook to "the world's most distinctive bottled waters." We also found that our subjects were no better than chance at either distinguishing tap water from those bottled water or matching expert descriptions to the bottled waters. Those results are similar to previous taste tests of wine.

Even when our subjects could tell a difference, they did not express strong preferences over the waters served to them. When asked to rate the bottled waters on the same scale used at the international water competition, some bottled waters were rated higher on average, but the average ratings of the most and least preferred bottled waters differed by less than one point on the 14-point scale. More expensive bottled waters were not rated significantly higher than cheaper ones. Our subjects did exhibit a stronger preference for the bottled waters over the inexpensive tap water served to them, but the average rating for tap was less than two points lower than the highest rated bottled water, and about 20% of subjects rated tap higher than any of the bottled waters. Those results are again similar to previous taste tests of wine.

Overall, the results of our blind water tasting support and extend the conclusions of Capehart's (2015) hedonic analysis of the price of bottled waters. Consumers seem to be largely indifferent between the different waters to the extent they can tell a difference, so the taste of the water inside a bottled water cannot be a major reason why consumers purchase and pay more for some bottled waters than tap or other bottled waters. Just as there is more to a wine than the look, smell, or taste of what is inside its bottle, there must be more to bottled waters than what is inside, especially since there are no visual differences among still waters, no odor differences, and subtle or non-existent taste differences. Consumers' willingness to pay for an expensive bottled water is therefore rooted in other aspects besides the water inside it.