AMERICAN ASSOCIATION OF WINE ECONOMISTS

AAWE WORKING PAPER
No. 272
Economics

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Mar 2022

Revisiting the Judgment of Paris
The Rise and the Fall of Stag's Leap Wine Cellars[*]

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March 1, 2022

Abstract

In this short note, we show that the results of the famous 1976 Judgment of Paris, a blind wine tasting of ten wines by eleven judges which ranked a Californian wine, Stag's Leap Wine Cellars as first, do no longer hold. The "best" wines are French (Château Haut-Brion, Château Léoville Las Cases, and Château Mouton Rothschild). Two Californian wines (Ridge Vineyards Monte Bello and Heitz Wine Cellars) are very close to some of the Great Grands Crus de Bordeaux, but Stag's Leap is far behind. It is not celar what happened. Either the wine was overated in 1976, or its quality decreased over time.

Keywords: Judgment of Paris 1976; Ranking of wines tasted in 1976

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Anyone who is interested in (good) wines—even if he never could afford buying one of the ten that will be discussed—should know what happened in Paris on May 24, 1976, a day in which Steven Spurrier, a British wine merchant and Patricia Gallagher, his colleague, organized a blind tasting of ten red wines.[1] Eleven judges (one American, one British and nine French),[2] who were obviously excellent wine experts, had to taste the ten wines: four Bordeaux[3] and six were Californian Cabernet-Sauvignons.[4] Wines were graded on a scale between 0 and 20, and the grades were simply added to compute the final ranking. The winner was *Stag's Leap Wine Cellars*, 1973, a Californian Cabernet Sauvignon from Napa Valley, while celebrated Bordeaux—Mouton-Rothchild, Montrose, Haut-Brion and Léoville Las Cases—trailed after Stag's Leap in positions 2, 3, 4 and 6. It is often said this event may have brought American wines to the forefront of the wine business. Table 1 gives the result of the Paris tasting in the order in which wines were rated.

George Taber assisted to the tasting. Much later, he wrote a book on the story (Taber, 2005) and writes that the story "turned out to be the most important event, because it broke the myth that only in France could you make great wine. It opened the door for this phenomenon today of the globalization of wine." Mary Godoy (2016), a senior science and health editor and correspondent at National Public Radio News, punned that this was "the blind taste test that *decanted* the wine world."

Ashenfelter and Quandt (1999) suggested that ratings are not a good statistical method: Tasters should have ranked the wines instead of rating them. They converted the ratings given by the 11 experts into ranks, and recomputed the order of the ten wines. This did not change the position obtained by *Stag's Leap*, which remained no 1, but the order of a couple other wines changed.[5]

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[1] Experts also tasted ten white wines, but here we only discuss red wines, since white wines were less discussed in the literature.

[2] Pierre Brejoux (French) of the Institute of Appellations of Origin, Claude Dubois Millot (French) (Substitute to Christian Millau), Michel Dovaz (French) of the Wine Institute of France, Patricia Gallagher (American) of l'Academie du Vin, Odette Kahn (French) Editor of *La Revue du vin de France*, Raymond Oliver (French) of the restaurant Le Grand Véfour, Steven Spurrier (British), Pierre Tari (French) of Chateau Giscours, Christian Vannequé (French) the sommelier of Tour D'Argent, Aubert de Villaine (French) of the Domaine de la Romanée-Conti, and Jean-Claude Vrinat (French) of the Restaurant Taillevent.

[3] Château Mouton-Rothschild (Pauillac, First Growth, 1970), Château Montrose (Saint-Estèphe, Second Growth, 1970), Château Haut-Brion (Pessac, First Growth, 1970) and Château Léoville-Las Cases (Saint-Julien, Second Growth, 1971). The regions and vintages are between brackets.

[4] Stag's Leap Wine Cellars (1973), Ridge Vineyards Monte Bello (1971), Heitz Wine Celllars Martha's Vineyard (1970), Clos du Val Winery (1972), Mayacamas Vineyards (1971) and Freemark Abbey Winery (1969). The vintages are between brackets.

[5] To be more precise, Ashenfelter and Quandt's suggestion, which is essentially the so-called Borda's proposal in voting theory, leads to a tie between Stag's Leap Wine Cellars and French Château Montrose. Hulkower

In this short paper, we follow another path, and check whether the 1973 *Stag's Leap* vintage was out of kilter, or whether its position as no 1 (as well as the position of the other nine wines) was sustainable over time. To do this, we analyzed the ratings of experts (such as *Wine Spectator, Wine Enthusiast, Wine Advocate, Revue du Vin de France*, Jancis Robinson, James Suckling, and others) between 1968 and 2021. Table 2 shows the number of wines among the ten that were rated in Paris in 1973. Table 2a shows how many wines and their ratings could be retrieved between 1968 and 2021.[6] Table 2b shows the frequencies of available ratings for the ten wines. In 19 cases (years), it was possible to get all 10 wines, in 14, this was possible for 9 wines, etc. As will be seen, we also need the average rating for each of the regions (California, Pauillac, Saint-Estèphe, Pessac-Léognan and Saint-Julien). These were calculated using the same data as those in footnote 6.

Table 3 analyzes the lives of the ten wines. Column (4) shows the number of times each of them was observed in our data; column (5) contains the number of times the rating of each individual wine was larger than the rating of the region in which it was elevated (again California, Pauillac, Saint-Estèphe, Pessac-Léognan and Saint-Julien). As can be seen, *Stag's Leap* did better than the average rate of all Californian wines only once out of 27, while, as shown in column (6) Mouton, Haut-Brion, Ridge Vineyards and Léoville Las-Cases are better than the average rate of the region more than half of the times, and Heitz is close with 49 percent.

Two regressions are shown in Table 4. One is based on 359 observations for which the score of the wine *and* the average score of the region are available. The other one is based on 190 observations that are complete (10 wines times 19 years). The reference category is Stag's Leap Wine Cellars. The two regressions can be written

$$R_{ijt} = \alpha_i \, wine_i + \beta \, x_{jt} + \gamma + \varepsilon_{it},$$

where R_{ijt} is the rating of wine i elevated in region j and year t, $wine_i$ is a dummy equal to 1 for this wine and 0 otherwise, x_{jt} is region's j average wine score in yeart t; it takes into account the weather (and other) conditions in region i and year t the α_i, β and γ are parameters. Estimates α_i are the differences between x_{jt} and R_{ijt}. It can be interpreted as

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(2009), who scrutinized the use of Borda's proposal for the *Judgement*, noted that Château Montrose would be the only winner, provided we dismiss the votes of the two non-official judges. Ginsburgh and Zang (2012) and Gergaud et al. (2021) studied other voting protocols which also changed the outcomes of the *Judgement*.

[6] Vintage scores can be found on https://www.wine-searcher.com/vintage-chart/all/fine-wines/4671/north-coast for all six Californian wines. For Château Haut-Brion, check https://www.wine-searcher.com/vintage-chart/all /fine-wines/7-bordeaux; the three other French wines can be found on https://www.wine-searcher.com/vintage-chart/all /fine-wines/901-medoc

being the number of points that deviates from the regional vintage score of the region. Château-Mouton, for example, has 3.986 points more than the average rating of the whole Pauillac region. In both regressions (359 or 190 datapoints), the rankings are identical. The winners are Haut-Brion, Léoville Las-Cases, Mouton-Rothschild and Ridge Vineyards, while Stag's Leap, Clos du Val, Mayacamas and Freemark Abbey are at the bottom of the rating.

The results shown in Table 3 and 4 are very close. The regressions have the advantage to give information on the standard error of the parameters: seven of them are significantly different from 0 at the 1 percent probability level. The standard errors show that there is little, if any, difference in quality between French wines and two Californian wines (Ridge Vineyards and Heitz Wine Cellars). Stag's Leap is number 8 in the ranking; the parameters α_i are not significantly different from those of Freemark Abbey or Clos du Val.

We conclude that our results are probably much more solid than those which resulted from the oneshot Judgment of Paris. Here we deal with a larger set of data and rates given by many experts over 54 years. They show that Stag's Leap Wine Cellars never was competitive enough to beat French wines, and some other Californian wines such as Ridge Vineyards and Heitz Wine Cellars. In the Judgement, the difference between the 14.14 average rating given to Stag's Leap and the 14.09 given to Château Mouton-Rothschild can hardly be discerned and there is no statistical test to distinguish the two ratings. Had judge Christian Vanneque given 16 instead of 16.5 points to Stag's Leap, its average ranking would have dropped from 14.14 to 14.09, that is exactly the same rating as Mouton-Rothschild. The Stag's Leap miracle would probably not have taken place. In 1976, the result was exceptionally important for Californian wines and they took advantage of the 0.05 difference. After all, why not, but what we show in this paper is that it did not last...

In our world, there are as many first prizes as there are competitions, but they do not necessarily live very long. This is so for books, movies, musical contests, and other fields in which competitors grow as do mushrooms. See among others, English (2005) and Ginsburgh (2003).

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Table 1. The Paris 1976 Wine Tasting: Judges and Ratings

Wines Origin	A (US)	B (F)	C (F)	D (F)	E (US)	F (F)	G (US)	H (US)	I (US)	J (US)
Judges										
Pierre Brejoux	14	16	12	17	13	10	12	14	5	7
Aubert de Villaine	15	14	16	15	9	10	7	5	12	7
Michel Dovaz	10	15	11	12	12	10	11	11	8	14
Patricia Gallagher	14	15	14	12	16	14	17	13	9	14
Odette Kahn	15	12	12	12	7	12	2	2	13	5
Claude Dubois-Millot	16	16	17	13.5	7	11	8	9	9.5	9
Raymond Olivier	14	12	14	10	12	12	10	10	14	8
Steven Spurrier	14	14	14	8	14	12	13	11	9	13
Pierre Tari	13	11	14	14	17	12	15	13	12	14
Christian Vanneque	16.5	16	11	17	15.5	8	10	16.5	3	6
Jean-Claude Vrinat	14	14	15	15	11	12	9	7	13	7
Average rating	14.14	14.09	13.64	13.23	12.14	11.18	10.36	10.14	9.77	9.45
Final rank	1	2	3	4	5	6	7	8	9	10

Wines: A: Stag's Leap Wine Cellars, 1973; B: Château Mouton-Rotschild, 1970; C: Château Montrose, 1970; D: Château Haut Brion, 1970; E: Ridge Vineyards Monte Bello, 1971; F: Château Léoville Las Cases, 1971; G: Heitz Wine Cellars 1970; H: Clos du Val Winery, 1972; I: Mayacamas Vineyards, 1971; J: Freemark Abbey Winery, 1969.

Table 2a. Number of Available Ratings per Vintage

Year	No. of wines	Year	No. of wines
1968	2	1995	9
1969	1	1996	10
1970	8	1997	10
1971	6	1998	9
1972	8	1999	10
1973	9	2000	10
1974	9	2001	10
1975	9	2002	10
1976	8	2003	10
1977	9	2004	10
1978	10	2005	10
1979	7	2006	10
1980	8	2007	10
1981	8	2008	10
1982	8	2009	10
1983	8	2010	10
1984	8	2011	9
1985	8	2012	10
1986	8	2013	10
1987	9	2014	10
1988	9	2015	10
1989	7	2016	9
1990	9	2017	8
1991	9	2018	8
1992	9	2019	5
1993	8	2020	5
1994	9	2021	5

Table 2b. Frequencies of available ratings

Number of wines	Number of ratings
10	19
9	14
8	13
7	2
6	1
5	3
2	1
1	1

Table 3. Number of Available Ratings per Wine and Sucess of Wines

Rank Paris (1)	Wine (2)	Region (3)	No. of observations (4)	No. of times above region* (5)	% of times above region* (6) = (5)/(4)
1	Stag's Leap Wine Cellars, 1973	California, US	27	1	4
2	Château Mouton Rothschild, 1970	Pauillac, F	51	26	51
3	Château Montrose, 1970	Saint-Estéphe, F	51	18	35
4	Château Haut-Brion, 1970	Pessac-Léognan, F	51	33	65
5	Ridge Vineyards Monte Bello, 1971	California, US	49	29	59
6	Château Léoville Las-Cases, 1971	Saint-Julien, F	51	29	57
7	Heitz Wine Cellars, Martha's W., 1970	California, US	41	20	49
8	Clos du Val Winery,1972	California, US	44	10	23
9	Mayacamas Vineyards, 1971	California, US	50	17	34
10	Freemark Abbey W., 1967	California, US	37	4	11

* Number of times the rating of each individual wine was larger than the rating of the region in which it was elevated.

Table 4. Paris Ranking and Later Rankings

Rank Paris	Wine	Region	Coeff. (1)	Rank	Coeff. (2)	Rank
1	Stag's Leap Wine Cellars	California, US	0.0	8	0.0	8
2	Château Mouton Rothschild	Pauillac, F	-3.986*** (0.560)	3	-4.514*** (0.641)	3
3	Château Montrose	Saint-Estéphe, F	3.229*** (0.545)	6	3.555*** (0.639)	6
4	Château Haut-Brion	Pessac-Léognan, F	4.641*** (0.550)	1	5.025*** (0.643)	1
5	Ridge Vineyards M.B.	California, US	3.760*** (0.634)	4	4.421*** (0.621)	4
6	Château Léoville Las-Cases	Saint-Julien, F	4.415*** (0.525)	2	4.644*** (0.607)	2
7	Heitz Wine Cellars	California, US	3.713*** (0.602)	5	3.368*** (0.651)	5
8	Clos du Val W.	California, US	-0.534 (0.763)	10	-1.474* (0.830)	10
9	Mayacamas Vineyards	California, US	2.099*** (0.620)	7	2.105*** (0.686)	7
10	Freemark Abbey W.	California, US	-0.750 (0.624)	9	-0.368 (0.649)	9
	Regional Vintage Score		0.866*** (0.068)		0.758*** (0.120)	
	Constant		6.895 (6.352)		18.722 (11.358)	
	R-square		0.574		0.700	
	No. of observations		359		190	

Note: Robust standard errors in brackets; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.01$