The problem of wines' ranking
The reasons why everyone is wrong

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1 - Introduction

Two wines' tasting
Why unexpected results?

1976 Paris Tasting
Jugement de Paris – Dégustation de Paris

24 mai 1976
Hôtel Intercontinental

20 wines, from California (12) and from France (8)

11 and 12 January, 1978 – Vintners club, San Francisco

10 years after – 1986 – (French culinary Institute, Wine Spectator)

30 years after – 2006 – red wines – two wine tastings
in Napa (Centre culinaire Copia) and London (Berry Bros & Rudd, wine merchant)

http://www.cask23.com/collectorsCorner/article/33

http://www.barnesandnoble.com/w/judgment-of-paris-george-m-taber/1100333129?ean=9781416547891
Participants

9 French men and women in the panel of judges

2 organizers

Steven Spurrier, British owner of the "Caves de la Madeleine", informed wine lover

Patricia Gastaud-Gallagher, free-lance journalist

1 journalist, observer

Georges Taber, correspondent Time (New-York)

Panel of judges

- Pierre Bréjoux, Inspecteur Général INAO
- Michel Dovaz, Président de l'Institut œnologique de France
- Claude Dubois-Millot, Chef des ventes Gault-Millau
- Odette Kahn, Rédactrice en chef – Revue du Vin de France
- Raymond Oliver, Propriétaire et Chef du Grand Véfour
- Pierre Tari, Propriétaire Château Giscours
- Christian Vannequé, Chef sommelier de la Tour d'Argent
- Aubert de Villaine, Copropriétaire et cogérant du Domaine de la Romanée Conti
- Jean-Claude Vrinat, Propriétaire du restaurant Taillevent

Results

unexpected and "revolutionary"

The Californian Wines outclass the French Wines!

Tasted wines

10 white – 10 red

Vins blancs (chardonnay)

1. France - Château Montelena (en) 1973 (oenologue : Mike Grgich) - 14,4
2. France - Roulot (meursault-Charmes) 1973 - 14,05
3. États-Unis - Chalone Vineyard (en) 1974 - 13,44
4. États-Unis - Spring Mountain Vineyards (en) 1973 - 11,55
5. France - Joseph Drouhin La Claus des Mouches (reineclaire) 1973 - 11,22
6. États-Unis - Greenmark Abbey Winery (en) 1972 - 11,11
7. France - Kurnaton-Prudhon (blanc-furon) 1973 - 10,44
8. France - Domaine Lelarge Les Pucelles (puligny-montrachet) 1972 - 9,88
9. États-Unis - Veenkercrest Vineyards 1972 - 9,77
10. États-Unis - David Bruce Winery (en) 1973 - 9,66
**Vins rouges (majoritaire cabernet sauvignon)**

2. France - Château Mouton Rothschild (paulliac), 1970 – 14.09
3. France - Château Montrose (st-emelie), 1970 – 13.64
5. States-Us - Ridge Vineyards (en), 1971 – 12.11
6. France - Château Leoville Las Cases (st-julien), 1971 – 11.18
7. States-Us - Heitz Wine Cellars (en), Martha's Vineyard, 1970 – 10.56
10. States-Us - Freemark Abbey Winery (en), 1967 – 9.64

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**Tasting in Beijing**

"Bordeaux against Ningxia"

14 December, 2011
organised by Jim Boyce, consultant in wines in China

[www.grapewallofchina.com](http://www.grapewallofchina.com)

**Chinese Wines challenge Bordeaux Wines**

blind tasting - 10 red wines

5 Chinese wines (Ningxia area) – 5 Bordeaux wines

**vintages: 2008 and 2009**

Prices in China: 30 to 55 $, 24 to 43 €, 200 to 350 yuan

5 Chinese judges - 5 French judges

1 – Cabernet-Sauvignon 2009 – Ningxia's Grace Vineyard
2 – Silver Heights' The Summit 2009
3 – 2009 JiaBeiLan
4 – Grace Vineyards' Deep Blue
5 – Saga Médoc 2009, vignoble de Lafite

Mouton-Cadet 2009 ; 2009 Calvet Médoc réserve de l'Estey
2008 Cordier Prestige ; 2008 Kresmsan grande Réserve Saint-Emilion

2009 Silver Heights Family Reserve de Ningxia
**Chinese Wines gain against Bordeaux Wines**

Chinese wines from domains vs Bordeaux wines from wine merchants based on a range of prices in China
domestic wines vs imported wines charged with high taxes (≈ 43 %)

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**2 - Place and function of wine tasting**

Wine Tasting and hedonic notes
What objective(s)?
avowed or unspoken?
concours between wines?
grading of wines?

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The Wine Tasting

Most of Sensory Analysis require the consumer to specify a hedonic rating on an interval [0,10] or [0,20], [0,100],....in order to obtain the score of a one-dimensional parameter: the hedonic score

This assessment should be conducted either for a general appreciation of wine, or to obtain an assessment of a specific characteristic.
Three men who have marked the œnology and the wine tasting

Maynard A. Amerine (1911 – 1998)
enoologist, teacher, UC Davis (USA)
"Wines: their sensory Evaluation" (1976)

Emile Peynaud (1912 – 2004)
œnologue, U. Bordeaux (France)
"Père de l’œnologie moderne" / "Father of modern oenology"
"Le goût du vin, le grand livre de la dégustation" (1980)

Robert Parker (1947 – xxxx)
wine taster
"Le pape du vin", le gourou du vin / "The Pope of Wine"
founder of the newsletter "The Wine Advocate" (1978)

Use of three sensory organs
today: eye, nose, mouth

if fourth note: global impression

eye: colors' shades (color chart Pantone)

nose: learning (box "nez du vin")

mouth (5 flavors): sweet, salted, acid, bitter, umami

Maynard AMERINE (1911 - 1998)
UC Davis

notation of wines with olfactory perception

introduction part of nose

experience on wines from Sonoma and Napa

The Wine Tasting
Colours, Fragrance and Flavours...

Colour (the eye)
White wines: white gold, green gold, dark golden, yellow green, straw yellow, pale yellow, orange yellow, dark yellow, ...
Red wines: purplish, garnet, ruby red, morello cherry, brick red, tile red, mahogany, ...

Fragrances and aromas (the nose)
fruits (fresh, dry, cooked), floral notes, plants scents and aromas, mineral, spicy, food notes, animal, coffee or liquorices, undergrowth (Richard Pfister, Ecole d'Ingénieur de Changins, Suisse, 2004)

Flavours (the mouth)
salted, sweet, acid, bitter and umami
Emile Peynaud (1912 – 2004)

enologist, "Père de l'œnologie moderne"
collaborator of Jean Ribéreau-Gayon (1905 – 1991), U. Bordeaux

a lesson of wine tasting (film of TV programme - Bernard Pivot, 1980)

"La dégustation est une science et un art
Tasting is a science and an art"

"Le goût du vin, le grand livre de la dégustation"

In tasting, distinction between

* sensorial activities vs intellectual activities
* analytical impression vs global impression
* ordinal note vs global note

The Wine Tasting

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Hedonic scale of Emile Peynaud, Le goût du vin, 1980 (page 98)

Schéma global de dégustation.

Emile Peynaud and Jacques Blouin (2006) - Le goût du vin - éditions Dunod - Paris
Robert PARKER (1947 – )

Wine taster and guru of wine
the most powerful critic in the history of wine

founder in 1978 "The Wine Advocate"
purchased parts by Singaporean team (end of 2012)

blind tasting
1 judge – for each area

Maynard A. Amerine scale (1952)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couleur / color</td>
<td>10</td>
</tr>
<tr>
<td>Bouquet / bouquet, nose</td>
<td>15</td>
</tr>
<tr>
<td>Caractère variétil</td>
<td></td>
</tr>
<tr>
<td>Acidité volatile / volatile acidity</td>
<td>10</td>
</tr>
<tr>
<td>Goût / flavour</td>
<td>15</td>
</tr>
<tr>
<td>Acidité totale / total acidity</td>
<td>8</td>
</tr>
<tr>
<td>Douceur / sweetness</td>
<td>8</td>
</tr>
<tr>
<td>Corps / body</td>
<td>6</td>
</tr>
<tr>
<td>Astringence / astringency</td>
<td>10</td>
</tr>
<tr>
<td>Qualité générale / general quality</td>
<td>8</td>
</tr>
<tr>
<td>Total / Total</td>
<td>100</td>
</tr>
</tbody>
</table>

source: Norbert Got (1963), *Le livre de l'amateur de vin*, La Journée vinicole, Montpellier

The rating systems

Parker and the Wine Advocate rating system

Based on 50 points with more points
(aggregation of individual scores on the following criteria)

5 points general color and appearance
15 points aroma and bouquet (intensity level, cleanness of the wine)
20 points mouth (flavor and finish, intensity of flavor, balance, depth and length)
10 points overall quality level or potential for further evolution and improvement, aging

http://www.erobertparker.com/info/legend.asp
50 – 59  wine deemed to be unacceptable
60 – 69  below average wine
70 – 79  average wine
80 – 89  barely above average to very good
90 – 95  outstanding wine
96 – 100  extraordinary wine

3 - Inconsistency and bias

Who is taking the variableness of vintages into account?

1. Highlight vintages and accept the interannual variability
2. Want to classify wines based on an average score or a single photograph at time t

Who is thinking to multi-characteristic context?

1. The will of sophistication tastings and multiple characterizations olfactory, gustatory, visual, etc...
2. Want to classify wines based on aggregate score
Construction of judgments and origin of bias

Four multi-characteristical dimensions

* **Choice of the wines**: multiple "organoleptic" characteristics, typical or not for an area; can distort the judgment if a wine is not typical of its terroir.

* **Choice of the panel of judges**: the members have manifold knowledges, competences, sensorial abilities; credibility of the judge, level of skill or expertise, recognized or not; professionalism and qualification.

* **Choice of the assessment method** (classification methods): grading and aggregation of basic, multicharacteristical information; process of assessment in notation, grading, ranking ...

* **Bias in protocol or design / bias in the procedure**: changes and improvement of tasting protocol have been made with new scientific discoveries; use (economic) results of tastings and rankings.

**31 - Choice of the wines**

* at the initiative of the organizers?

* at the initiative of the producer? self-censorship if wine does not meet expectations (contest "best chardonnay in the world" and other similar competitions, syrah, merlot, sparkling, ...)

* homogeneity: grape variety, vintage, area, appellation, ...

**Risks**

* mislead the wine taster holding a place whose characteristics are not those wines the place (even signing a winemaker for wines from different regions)

* retain wines of unrepresentative vintage of the location or the year (e.g., small vintage Burgundy and great vintage competitor)
32 - Choice of the panel of judges

a "guru" – individual judgment (cf Parker)

vs

a panel of « experts" with individual variability (cf Grand Jury Européen)

heterogeneity and individual inequalities sensorial skills (in terms of sensorial receptors) - (D. Valentin – 2011)

heterogeneity of sensorial experiences
(sensory weaknesses, enrichment of sensorial memory over time, learning, training, sensorial and general culture)

role of the environment, of the context (atmosphere, ...)

33 - Choice of the assessment method

Ranking methods
(with a single rating criterion)

see Balinski, Laraki in “Wine Economics: Quantitative studies and Empirical Applications”

Point-summing = the 'obvious' method: add the scores, then rank the wines in accordance with their sums (or averages)

Borda's method (1781) = a single-winner election method in which voters rank candidates (wines) in order of preference, by giving each wine a certain number of points corresponding to the position in which it is ranked by each judge. Once all votes have been counted the candidate with the most points is the winner.

Majority vote pair-by-pair = The 'Condorcet' winner defeats all others in a direct vote

Truncated point-summing = eliminating a competitor's highest and lowest grades in order to dampen the influence of exaggerated grades

Quandt's method = the method treats the judges' individual ranks as points and ranks the wines according to their sum

And many others.....

Majority judgment (Balinski and Laraki)
in “Wine Economics: Quantitative studies and Empirical Applications”

Majority judgment is a single-winner voting system. Voters freely grade each candidate in one of several named ranks, for instance from "excellent" to "bad", and the candidate with the highest median grade is the winner.

If more than one candidate has the same median grade, a tiebreaker is used which sees the "closest-to-median" grade.

Majority judgment can be considered as a form of Bucklin voting which allows equal ranks.
With such a method

« California did not defeat Gaul in 1976 »

Balinski-Laraki (2013)

34 - The bias of the design

* closeness of judges, talk between judges (photo - Paris tasting)

* to announce or not the category of wine when? at the time of invitation? before tasting?

Paris tasting – judges have been invited to taste Californian wines Before the tasting, they have been informed of presence of French wines!

* anonymous bottles? To decant the wines to prevent the recognition of the shape of the bottles?

Mai 1976 - Exchanges between Patricia Gastaud-Gallagher (co-organizer) - Steven Spurrier (organizer) – Odette Khan (Revue du Vin de France)

4 - Rating and Ranking?
How to limit the bias?

an example

The "Grand Jury Européen"

Principles of Grand Jury Européen

tastings under strict rules: wines are bought on the market, **blind tasting** by a panel of European professionals, operations juridically controlled

30 wines are blind tasted during a session; possibility of a second tasting of the same wines but with the knowledge of the names of the wines (rating and ranking are generally modified – eg Bordeaux 2001)

evaluation with common characteristic : same grape variety, or same region, ...

only one vintage is tasted during a session

Grand Jury Européen

Association founded in 1996 by François Mauss, with 35 permanent members: oenologists (e.g. Stéphane Derenoncourt), Sommeliers, Wine Waiters (e.g. Olivier Poussier), Winemakers (e.g. Dirk van der Niepoort), professional critics (Bernard Burtschy), etc.

- organizes tastings (6 times per year) with great wines
- minimum of twelve members, from 6 European countries during every wine tasting
- generally, tastings during two days a week, with two sessions a day

Principles of Grand Jury Européen

- wines are served in random order; order decided by drowning lots; check operated by Paolo Baracchino, lawyer from Florence
- each wine taster has her/his own table with every samples in numbered glasses
- Grand Jury Européen uses rating on 100 points. The statistical processing of evaluations is operated by a professional statistician (Bernard Burtschy)
"L'incroyable Dégustation à l'aveugle des plus Grands Bordeaux – 2001"
29 juin 2009 - Paris

http://www.youtube.com/watch?v=q6w9hM8fFjC
http://www.youtube.com/watch?v=KzwaH7x2eA0

Dégustation du Grand Jury Européen: 1er et 2ème crus classés (1ère partie)
http://www.youtube.com/watch?v=6cChxfkYtq8

Dégustation du Grand Jury Européen: 1er et 2ème crus classés (2ème partie)
http://www.youtube.com/watch?v=ArKj0R9NMB

Concluding Comments

Thank you for your attention!

Gracias por su atención!