SUPPLEMENTARY DATA
Geffroy, O., Maza, E., Lytra, G., & Chervin, C. (2024). 'Liking then CATA' or 'CATA then liking'? Impact of the hedonic question positioning on the wine sensory description and appreciation. *OENO One*, *58*(3). https://doi.org/10.20870/oeno-one.2024.58.3.

Supplementary data

SUPPLEMENTARY DATA S1. Wines used in the four studies

	% Alcohol	pH	vintage	Cultivar	
Red wine of study 1	14,6	3,8	2022	Seibel 5455	
CONTROL	+ 0 **g/L** erythritol				erythritol marketed
PLUS10	+ 10 g/L erythritol				by Merisant, France
PLUS20	+ 20 g/L erythritol				under the PureVia® brand
PLUS30	+ 30 g/L erythritol				

	% Alcohol	pH	vintage	Cultivar	
Red wine of study 2	14,6	3,8	2022	Seibel 5455	
CONTROL	+ 0 **mg/L** rebaudioside A 98				rebaudioside A 98
PLUS20	+ 20 mg/L rebaudioside A 98				marketed by Stevia Natura,
PLUS40	+ 40 mg/L rebaudioside A 98				France
PLUS60	+ 60 mg/L rebaudioside A 98				

Rosé wines of study 3	% Alcohol	pH	vintage	Cultivar	
	11	3,4	2023	Négrette	
ROSE1	Control blend + 20 % aromatic wine*				Rosé marketed by
ROSE2	Control blend				Vinovalie, France
Note that ROSE1BIS and ROSE2BIS were identical to ROSE1 and ROSE2, respectively					*obtained with a different process (maceration, yeast)

White wines of study 4	% Alcohol	pH	residual sugars (g/l)	malic acid (g/l)	lactic acid (g/l)	vintage	Cultivar	Region of origin
MUSCAT	12,7	3,4	2,3	0,9	0,2	2022	Muscat	Occitanie, France
RIESLING	12,2	3,2	1,8	0,1	1	2022	Riesling	Grand Est, France
SAUVIGNON	11,8	3,4	0,7	1,1	0,1	2022	Sauvignon	Centre-Val de Loire, France
CHARDONNAY	12,6	3,4	0	0	2,2	2022	Chardonnay	Bourgogne Franche Comté, France
all white wines were commercial premiums, with prices ranging from 10 to 15 euros.								

SUPPLEMENTARY DATA S2. [A] Attributes chosen in the four studies, by a subset of the panel (approx 33%) with the same wines a few days before the complete panel work, as described in a previous study (Nougarede *et al.*, 2023) and [B] panel details (bottom of the table)

[A] Attributes lists

Red wine, study 1		
alcohol.hot	lingering	bitter
sour.acid	soft	fruity
sweet	strong	bland
Red wine, study 2		
alcohol.hot	lingering	bitter
sour.acid	soft	fruity
sweet	strong	bland
Rosé wine, study 3		
fruity	aromatic	sweet
citrus	floral	aqueous
acid	refreshing	fizzy
White wine, study 4		
floral	apple.peach	sweet
lemon.citrus	acid	green notes
tropical fruit	fresh	honey

We decided to limit the number of attributes to 9 in all studies (based on attribute numbers used in Jaeger *et al.*, 2023).

We chose them based on occurrences in free-comment preliminary sessions with panel subsets

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[B] Panel details (see codes below the table)

Panel, study 1	**Liking+CATA**	**CATA+Liking**
Number of panelists	42	39
Men/Women (nb/nb)	19/23	17/19
Age ± SD (years)	21.2±1.4	21.6±1.6
Y/M/W (number)	0/20/22	5/23/11
B/A/I (number)	27/13/2	26/11/1
C/L (number)	21/21	16/23

Panel, study 2	**Liking+CATA**	**CATA+Liking**
Number of panelists	52	51
Men/Women (nb/nb)	26/26	22/29
Age ± SD (years)	23.5±2.8	22.9±2.2
Y/M/W (number)	5/27/20	8/36/7
B/A/I (number)	23/16/13	24/19/8
C/L (number)	22/30	18/33

Panel, study 3	**Liking+CATA**	**CATA+Liking**
Number of panelists	50	51
Men/Women (nb/nb)	19/31	20/31
Age ± SD (years)	23.1±5.0	23.0±6.3
Y/M/W (number)	7/26/17	5/26/20
B/A/I (number)	24/18/8	26/22/3
Red/Ros/Wh (nb)	20/4/26	23/6/22

Panel, study 4	**Liking+CATA**	**CATA+Liking**
Number of panelists	33	33
Men/Women (nb/nb)	15/18	18/15
Age ± SD (years)	35.1±14.3	31.6±11.5
Y/M/W (number)	3/6/24	1/12/20
B/A/I (number)	11/10/12	9/11/13
Red/Ros/Wh (nb)	23/0/10	20/1/12

Codes about wine consumption frequency

Y stands for a few glasses per year
M stands for a few glasses per month
W stands for a few glasses per week

Codes about subjective knowledge about wine (self estimation)

B stands for Beginner
A stands for Amateur
I stands for Initiated

Codes for wine type preference

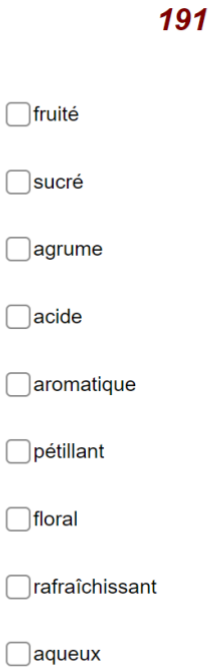
C stands for concentrated red
L stands for light red
Red stands for red wine
Ros stands for rosé wine
Wh stands for white wine

SUPPLEMENTARY DATA S3. Example of FIZZ questionnaire for the Liking then CATA assessments (for the CATA then Liking, the Liking and CATA screens were presented in reverse order)

Panelist **1**, wine 1 (example in study 3 with rosé wines)
Screen 1 (below) after a preliminary enquiry, tasting directions and scoring explanations, the liking score anchors were: "1" I don't like it at all, "9" I like it very much



Screen 2



Screen 4, panelist 1, wine 2



Screen 5

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- [ ] fruité
- [ ] sucré
- [ ] agrume
- [ ] acide
- [ ] aromatique
- [ ] pétillant
- [ ] floral
- [ ] rafraîchissant
- [ ] aqueux

etc… with four wines, thus 8 screens per panelist

Panelist **2**, wine 1 (example in study 3 with rosé wines)
Screen 1

Note Globale ***117***

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9

Screen 2

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- [ ] pétillant
- [ ] acide
- [ ] rafraîchissant
- [ ] sucré
- [ ] aqueux
- [ ] fruité
- [ ] floral
- [ ] agrume
- [ ] aromatique

Screen 3

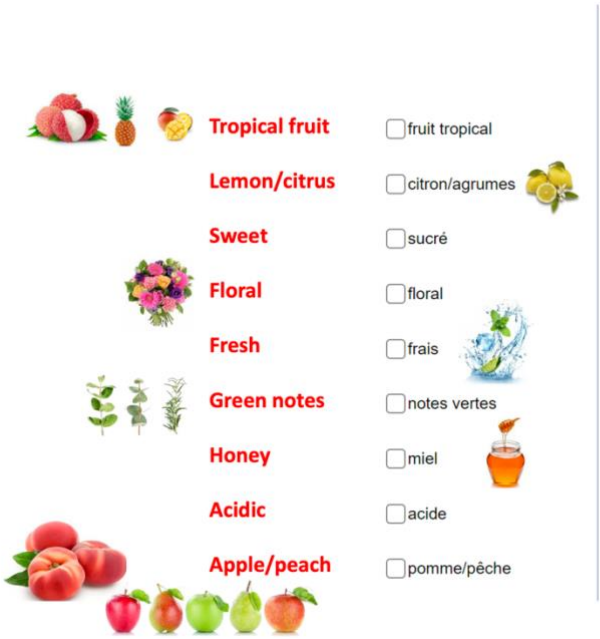


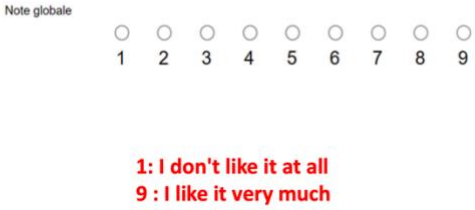
Screen 4



etc… with four wines

SUPPLEMENTARY DATA S4.





SUPPLEMENTARY DATA S5.

Instructions to use R scripts with the provided data: place the script and the data in a single folder for each study and each substudy, for example « Study 1 CATA+Liking », remove the figure of the study « 1 », « 2 », « 3 » or « 4 » and the letters « C_ » for « CATA+Liking » and « L_ » for « Liking+CATA » from the name of the data file. For example, « 1C_DataForCA » will be transformed to « DataForCA » and be placed in the « Study 1 CATA+Liking » folder. Place the script in the same folder. Run the script with R or R studio.

ANOVA tables of the four studies regarding Liking Scores, « Product » is the wine effect, « NumPanel » is the panelist effect

First study **

Liking then CATA

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	33.931	11.3102	4.0165	0.00935
NumPanel	41	221.808	5.4099	1.9212	0.003809
Residuals	111	312.569	2.8159		

CATA then Liking

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	64.595	21.5315	9.3051	1.59E-05
NumPanel	36	143.77	3.9936	1.7259	0.01672
Residuals	108	249.905	2.3139		

Second study **

Liking then CATA

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	6.83	2.2756	1.3382	0.2641
NumPanel	51	380.52	7.4612	4.3877	7.69E-13
Residuals	153	260.17	1.7005		

CATA then Liking

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	16.275	5.4248	2.7059	0.04742
NumPanel	49	290.176	5.922	2.9539	2.32E-07
Residuals	151	302.725	2.0048		

Third study **

Liking then CATA

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	11.455	3.8183	2.2652	0.08336
NumPanel	49	190.305	3.8838	2.304	6.58E-05
Residuals	147	247.795	1.6857		

CATA then Liking

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	13.843	4.6144	2.8176	0.041111
NumPanel	50	136.657	2.7331	1.6689	0.009699
Residuals	150	245.657	1.6377		

Fourth study **

Liking then CATA

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	16.879	5.6263	3.1109	0.0299312
NumPanel	32	153.833	4.8073	2.6581	0.0001301
Residuals	96	173.621	1.8086		

CATA then Liking

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Product	3	22.455	7.4848	3.2215	0.02608
NumPanel	32	129.015	4.0317	1.7353	0.02119
Residuals	96	223.045	2.3234		

2-Way ANOVAS using 1: Product and 2: Order (Liking→CATA, or CATA→Liking) as the two factors, and the Liking score as the variable (using Sigmaplot v.14)

First study **********

Source of Variation		DF	SS	MS	F	P
Product	3	82.135	27.378	8.732	<0.001	
Order	1	0.128	0.128	0.041	0.840	
Product x Order	3	17.101	5.700	1.818	0.144	
Residual	296	928.1	3.135			
Total	303	1026.7	3.389			

Second study **********

Source of Variation		DF	SS	MS	F	P
Product	3	19.83	6.610	2.165	0.092	
Order	1	2.83	2.829	0.926	0.336	
Product x Order	3	3.364	1.121	0.367	0.777	
Residual	404	1233.6	3.053			
Total	411	1259.5	3.065			

Third study **********

Source of Variation		DF	SS	MS	F	P
Product	3	24.875	8.292	4.002	0.008	
Order	1	1.246	1.246	0.601	0.438	
Product x Order	3	0.400	0.133	0.064	0.979	
Residual	396	820.41	2.072			
Total	403	846.96	2.102			

Fourth study **********

Source of Variation		DF	SS	MS	F	P
Product	3	36.15	12.05	4.540	0.004	
Order	1	0.242	0.242	0.091	0.763	
Product x Order	3	3.182	1.061	0.400	0.753	
Residual	256	679.5	2.654			
Total	263	719.1	2.734			