

Abstract

Taste power, or what wine tasting tells us about the brain of wine tasters A philosophical take on the influence of the brain on wine tasting

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1. Motivation

Philosopher Gordon M. Shepherd argues that “taste itself is an illusion; the taste is not in the wine, taste is created by the brain of the wine taster.” That complex sensory processing of taste occurs in the brain is hardly any news, although how taste mechanisms actually function still needs to be researched by neuro-scientists. However, the process of tasting leads to a more philosophical question: What can taste tell us about the wine taster?

Since the times of the philosopher Hume there is already debate about taste. By some taste is seen as personal sensory experience subject to individual biases, while others accept the existence of objective wine qualities, because they can be measured. What occurs in the brain we evaluate wine? Can we separate our appreciation of wine from our personal preference? Are judgments of taste just matters of opinion rather than matters of fact? It leads to question how we assess, identify, describe and share the taste of wine.

We use language to describe taste. Every one can communicate about their subjective tasting experience, e.g. if the wine is bitter or sweet or gives us pleasure, but it becomes confusing when we are not clear about a common objective language. Do we evaluate wine by flavor descriptors? Identifying an array of descriptors tells us something about complexity, yet surprisingly little about the actual quality of the wine or how well flavors cohere. “Flavor descriptors have nothing to do with judgment”. Matt Kramer calls the notion of objectivity one of the great myths of modern wine tasting, moreover blind tasting too. Blind tasting can be useful for general assessment, fault detecting and introducing unknown wines, but “sucks” at eliminating bias and prejudice. Can a better understanding of the tasting process, how tasting is perceived in the brain, help us to describe our tasting experience better?

To create what is called “flavor” the brain feeds all sensory stimuli into the higher centers of our brain and runs them past memory and pre-existing knowledge to merge all these elements for a final interpretation in the orbitofrontal cortex of the central brain system. It not only brings smell and taste together to form the sensation of flavor, it also specifies wine’s hedonic value, the perception of its quality or its pleasantness. It is where the brain decides whether what we tasted is disgusting, delicious or bland. Creating the flavor of wine engages the brain more than any other human behaviour.

2. Objective

The objective of this thesis is to explore the connection between the sensory experience of wine tasting and the experience and knowledge of the wine taster. Assuming that flavor perception is constructed in the brain, what does this then tell us about the person who tastes? Is wine tasting more determined by the brain of the taster or more by the experience and knowledge of the taster within a given social, cultural and geographical context?

While judging wines in international competitions I noticed that in certain wine cultures different qualities are revered. People don't only taste what is in the glass, but base their tasting judgment on memories of smells and tastes as well as on their own flavor preferences. On the one hand wine judges register their actual sensory perception, but on the other hand use their knowledge and experience to run sensory information past memories of former tasting experiences.

The constant stream of data challenges the brain. For decades now, neuroscientists pondered about how the brain can continue to learn new skills and add information without needing to grow in size or volume. Evidence suggests that upon learning something new the numbers of brain cells initially do increase. The brain expands temporarily, but audits these new cell connections constantly. When considered no longer necessary the cells are pruned away or assigned to other roles. This seems to be an effective way for the brain to first explore the possibilities of the new cells, select the best cell connections, and get rid of the 1s that are no longer needed.

But how does this work for wine tasters or wine judges? Can a wine taster's brain adapt to the constant influx of taste and flavors and decide on the spot which of the new sensory experiences are pruned away, and which are kept? In wine judging most tasters are tapping into an aesthetic system or culture outside their own individual habitat. Is therefore wine judging an individual experience or is it more influenced by collective geographical and cultural factors?

3. Methodology

This study engages a cross-genre mix of scientific, philosophical, literary and visual media forms from an interdisciplinary perspective, drawing on neuroscience, wine science, philosophy, documentary films, YouTube videos, but also on personal experiences and talks with people from the wine world. All the time remaining invested in close textual analysis, I set out to investigate the close connection between the brain and wine appreciation to understand what happens in the brain when we taste.

4. Conclusion

At every stage of smelling or tasting winetasters encounter difficulties. Yet I noticed most of us have a hard time to transpose appropriate judgments and tasting perceptions into words. It is actually quite a difficult linguistic challenge. It evokes what Hugh Johnson addressed as "the great imponderable of wine tasting: how to transcribe faithfully and eloquently what our noses and palates tell us."

We all need the right vocabulary to describe taste, and flavor for that matter. Assuming that flavor starts in the brain and is intrinsically hardwired in the brain, it means we have to re-examine what happens in our brain to better understand how we process sensory information. It also means we have to rethink the nature of our sensory tasting experiences and need to understand the phenomenon of perception better. Slowly, but surely I did writing this thesis.

It also reminds me of what Emile Peynaud already wrote years ago: 'we all can smell, taste, experience touch, texture and temperature, use all our senses to give meaning to what we experience. Tasting is a way of life. It presupposes a state of mind that is constantly receptive to all your senses. To taste effectively one must love wine. Know that it demands effort, patience, competence, willingness, intelligence, a conscious approach, honesty and, above all plenty of experience, to access what a wine actually tastes like.'

However, how we process tasting data or put them into words is determined by what we consciously, or mostly unconsciously, decide to keep or prune away from all those sensory impulses that reach our brain. Is it emotion, is it memory, is it knowledge, or is it culture that takes over? I now know it is the brain.