Our sense of taste

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As far as I'm concerned, the enjoyment of wine has to begin with the glass in your hand. Swotting up wine geography and vintage ratings is an optional extra and comes a long way down the line from working out how every drop of wine can give as much pleasure as possible.

The nose

If I could give just one piece of advice to any newcomer to wine, it would be: *don't forget your sense of smell.*

You have only to think of how dull food, even quite strongly flavoured food, tastes when you have a nose blocked by a head cold to realise what an important role the sense of smell plays in what we call taste. Tasting something involves persuading it to release molecules which stimulate special nerve cells in the mouth or the much more discriminating ones in the nose. In fact we can sense flavour only as an aroma because our flavour-sensitive nerve cells are concentrated in a small, postage stamp-sized area at the top of the nose called the olfactory area which transmits specific messages to the brain, and the only way of getting molecules up there is as a vapour given off by a liquid. (This is why hot food always seems to be so much more smelly than cold food – the vapour that it gives off transports flavour-packed molecules up the nose.)

To experience the flavour of a liquid such as wine to the full, therefore, molecules can be encouraged to escape the wine's surface by swirling the wine around before the taster takes a deliberate sniff. Doing this before each mouthful of wine may feel rather pretentious at first, but makes simple good sense.If wine has anything to offer other than the alcohol you can find in vodka or beer, it is the extraordinary range of flavours available not just in a single bottle, but in individual glasses of wine as they change under the influence of oxygen. Since man and nature went to so much trouble to put the aromas there, it really does make sense to smell a wine every time you taste it. This ensures not only that you get maximum value out of every wine you buy, but also slows down the consumption rate – which is useful for both body and bank balance.

The mouth

At this point many wine drinkers may be puzzled. They will reckon they already have a pretty good grasp of wine flavours, without ever having consciously sniffed (or 'nosed', as professional wine tasting parlance has it) a glass in their lives. This is partly because wine naturally vaporizes quite easily, and some wines such as those made from Sauvignon Blanc and Riesling grapes are inherently quite aromatic so their molecules need little encouragement to float up the nose. It is also, however, because of the retro-nasal passage which allows some flavour molecules to reach the olfactory area directly from the back of mouth, without any conscious effort.

This is how most foods are 'tasted'. Food is chewed in the mouth, transforming it into a liquid from which flavour molecules escape up the retro-nasal passage to reach the olfactory area - although many food professionals take just as much trouble consciously to smell ingredients and dishes before consuming them as wine tasters do.

But what of those nerve cells in the mouth? These also have an important, but quite different role to play in the business of tasting, and are what we call taste buds, about 10,000 of them distributed all over the tongue and, to a much lesser extent, the inside of the mouth with a few at the back of the throat. Rather than distinguishing between thousands of different flavours the way the olfactory nerve cells can, taste buds are sensitive to nothing more sophisticated than the basic 'tastes': sourness or acidity, sweetness, bitterness, saltiness, and the 'savoury', umami. We all vary enormously in the distribution and concentration of our taste buds and as a result there is a certain amount of disagreement about exactly how they function. The traditional model is that, in very general terms, the taste buds around the tip of the tongue are most likely to be sensitive to sweetness; those on the upper edges of the tongue may well tingle most obviously at sourness (mine certainly do); the flat back of the tongue is usually most sensitive to bitterness; and the front edges are most often particularly susceptible to saltiness. See Super-tasters and non-tasters, sensitivities and preferences

Wine contains three more components that can have an effect on the inside of the mouth. Tannin is a red wine preservative that comes from the grape skins, pips and (sometimes) stems, and has the same tanning effect (as in leather) on the inside of the cheeks as it does when encountered in well-stewed tea. Some tannins can also taste bitter. Alcohol has its own, often delightful, effect on our nervous system, but wines that are particularly high in alcohol can leave a 'hot' sensation on the palate after they have been swallowed. And many wines contain a perceptible amount of fizz, gassy carbon dioxide which has a physical, tactile effect which can vary from a gentle prickle to an uncomfortably overwhelming froth. Sometimes winemakers deliberately leave a little carbon dioxide in a wine to make it taste fresher.

Human variation

Almost anyone can be a wine taster; all it takes is a will and a nose. We vary from person to person not just in terms of the compounds we're particularly sensitive to, and the strength of those sensitivities, but also in our physical make-up. A small minority, sometimes called anosmics, have a poor, defective or damaged sense of smell - either from birth, or the result of polyps, hormonal upsets, head injury, radiation therapy or, most commonly, advancing years.

Smell and taste nerve cells may be the only cells in the nervous system that are replaced when they become old or damaged, but the human sense of smell still tends to be most accurate between the ages of 30 (when we have sufficient understanding and experience to interpret what our nerve cells tell us) and 60 (when the messages tend to start to become fainter). Different animals have different smelling and tasting abilities; whereas the human has quite a small part of the brain devoted to interpreting messages from the nose area, a dogfish has a very large one. Dogfish would make great wine tasters.

However we all have very different sensitivities (and preferences – quite different from what we happen to be able to taste easily) so it's very unlikely that two tasters experience exactly the same sensations when they smell a wine. This is why there are no absolutes in wine tasting. No-one can accuse you of being wrong in your opinion of a wine.