Draft: not to be circulated

Forthcoming in *Perceptual Ephemera* eds. Clare MacCumhaill and Thomas Crowther(OUP)

4

Representation and Ephemerality in Olfaction

*Cain Todd*

‘Without doubt the glass of wine stood there in every respect, and the question, if it stood there or did not stand there, was thoroughly absurd and silly. Any normal person would have immediately comprehended the glass of wine, but he who did not trust his eyes did not comprehend it, did not believe it, looked at the glass of wine for a good half hour, sniffed about it with his fool nose half a meter long...and asked: ‘Glass of wine, tell me, are you really there are you not really there?” The question was superfluous, for the glass of wine was there, that was fact... “So drink it then, so taste it, let yourself enjoy it, then you will have felt and experienced it, and its existence will no longer be in doubt to you” one would have liked to shout at him, him who did not trust his eyes, who looked at the glass of wine mistrustfully, instead of putting it to his lips.’

Robert Walser ‘So! I’ve got you’, p .112

Many philosophers have claimed that, unlike vision and audition, olfaction either fails to be representational or is, in various respects, representationally impoverished. In particular, some have argued that olfaction cannot by itself, without being supplemented by other sensory or recognitional capacities, represent material objects and is at best confined to the representation of odours. Construed phenomenologically, I argue that these claims are false, at least for some olfactory experiences and some types of olfactory object. I also suggest that the requirements placed on representation by an implicit or explicit focus on vision should be challenged. Finally, I show how the temporality, ephemerality, and valence that characterise much olfactory experience actually contribute to its representational richness and uniqueness.

1. REPRESENTATION IN OLFACTION

It is commonly, though not universally, held by philosophers that vision is representational. Put as simply and uncontroversially as possible, in vision the world appears to us to be some way or another and how it appears to be specifies the representational content of visual experience. In the visual experience of seeing a red tomato, a red round object is represented as being in the world. The structure of such an experience is predicative: ‘*X* is red and *X* is round’. The property red appears to belong to the object and as such is predicated of it, attributed to it. The phenomenology of visual content, one might say, is ‘attributional’ in nature, and this representational content can be accurate or inaccurate, true or false of the world.

The representational content of visual experience has this nature in virtue of the way in which visual experience is structured. Vision appears to present us with individual objects that are bounded, separate from one another in space, and arranged into background and foreground in such a way that i) we can readily distinguish and individuate them amongst the multiple array of objects and properties that typically occupy our visual field, and ii) we can perceive and identify objects and their parts as being occluded. Visual experiences are, accordingly, mereologically complex in the sense that different visible features are seen as different parts of the same object. In other words, in vision, we are not presented with an undifferentiated mass of properties; rather, the world is presented to us as carved up in a relatively neat way, with objects clearly represented as particular and solid. And finally, visual experience is also commonly thought to be transparent. When attending to our visual experiences we are, it is supposed, aware only of the objects and properties represented and not of any intrinsic features of the experiences themselves.[[1]](#endnote-1)

Many philosophers have observed that olfactory experience appears to contrast starkly with visual experience in all or most of these respects. In particular, insofar as olfactory experience by itself allegedly fails to bind odour properties together in the way required for genuine object identification and re-identification, philosophers have often argued that olfaction fails to represent at all or, at best, that it represents odours rather than the material ‘source’ objects that emit them.[[2]](#endnote-2) Part of the thought here, not always made explicit, is that odours are ephemeral rather than solid entities, intermingling in ways that exhibit no real order or structure. And where visual experiences allow for occlusion, possessing profiles and hidden aspects, olfactory experiences seem to lack such complexity and odours never appear to be partly occluded. They don't have profiles or hidden aspects, nor do they appear to be spatially oriented.

To take just a few well-known examples, David Chalmers (1996) has said that “smell has little in the way of apparent structure and often floats free of any apparent object, remaining a primitive presence in our sensory manifold” (p.8). Roger Scruton (2007, pp. 4-5) notes that the object of smell is not the thing that smells but the smell emitted by it, while William Lycan (2000) states: “a smell seems a modification of our own consciousness rather than a stable property of a perceptual object that would exist unperceived…Vision…offers a multitude of different perspectives that are, to some extent, under the subject’s control…[In contrast we] cannot easily see how one could entirely by smell check and recheck an external object’s identity or character by gaining successively different olfactory perspectives on that object.” (p. 277)

One central implication of such thoughts is that, for example, when I am in the kitchen smelling the odour of burnt toast, the smell seems to pervade the room without being attached to any particular solid object. That is, I know it is burnt toast, and can associate the smell with the burnt toast, but I cannot through my olfactory experience alone attribute the smell to the object that is its source, namely the burnt toast. The smell does not itself seem to occupy a determinate location in my environment but rather seems to be just present, so to speak, in my nose or vaguely ‘around’. There is no way for us to know by smell alone how many pizzas there are in the oven or the number of roses composing a bouquet standing right under our noses. Here is a recent claim along these lines made by Clare Batty:

When I spray lavender air freshener to try and mask the smell of cigarette smoke, I do not experience the lavender smell at one location and the smoke smell at another— for example, in the circumstance in which the locations are the same, as the lavender smell being right ‘on top of’ the smoke smell. Nor does it seem plausible to suggest that there might be a different circumstance in which my olfactory experience reports that the air freshener smell is on top of some of the smoke smell but that I missed a spot. As I sit in the room, I am unable to tell the difference between a circumstance in which I cover the whole room and a circumstance in which I miss a spot. (Batty 2009, n.5)

In fact, Batty (e.g. 2009, 2010a, 2010b) has attempted to argue that olfaction can be representational, albeit in a way significantly different from visual perception. Olfactory experience can be representational in possessing a weak kind of abstract, or existentially quantified, content. According to Batty, such experience reports that properties are instantiated by objects, just not by particular ones; rather, they are instantiated just by ‘some’ object or other at some rough location ‘around me’: “olfactory experience predicates properties to ‘something we know not what’ at the undifferentiated location of ‘here’”. (2011, p. 172) We don't experience one particular object to be lemony or minty, we just experience something being lemony or minty.

Batty thus maintains that while the abstract representational view she is defending allows for any number of property-types that a perceiver can distinguish in a given olfactory experience, it constrains the determinacy of the location at which these properties can appear to be instantiated. There is no proper, structured olfactory field and, importantly from our point of view, this is the case even if we introduce the notion of expertise:

According to the abstract view, the only location at which properties appear is the location that consists of the entirety of the olfactory field. Although research suggests that expert smellers have enhanced property discrimination, it does not suggest that they are capable of placing these properties at more determinate locations than normal smellers. But this kind of spatial discrimination is what the experts would have to be able to accomplish in order for their expertise to threaten the abstract view. For this reason, talk of “components” should be taken loosely. It does not indicate that expert smellers enjoy added spatial discrimination. (2009, p. 14)

Another strategy to resist the conclusion that olfactory experiences are purely sensational is given by Richardson (2011). According to her view, the visuocentric model of perception has wrongly assumed that an exteroceptive experience should involve the representation of distance and direction. In fact, what olfactory experiences show is that neither (the representation of) distance nor direction are necessary for something to be perceived as external and spatially distinct from the perceiver. The exteroceptivity of smell is assured by the act of sniffing. When a smelling experience occurs, odours are brought into the nose by sniffing. The fact that odours are revealed in experience by "being brought in from without" explains why odours are perceived as being external to the perceiver's body and why odours seem to be in the vicinity of the perceiver's nose.

Nonetheless, even if olfaction can be exteroceptive, it cannot by itself, according to Richardson, represent the individual source objects of the odours that are the intentional objects of olfaction. I do not literally smell the cheese, I smell the odour of the cheese filling the kitchen or the cheesy odour in my vicinity. She explains that, unlike visual objects, we are almost insensitive to the comings and goings of odour-sources in our environment. We can for example still smell the cheese in the kitchen long after it has been eaten. She thus observes that locating odour-sources depends on other sense modalities as well as other cognitive resources:

...had I not the ability to recognise this odour as that characteristically produced by roses, and were I not also able to see the roses in the room, my olfactory experience would be no guide at all to the presence of roses in my vicinity. I could just as easily conclude that there was something else rose-scented about, such as air-freshener or a perfume-wearing friend. (2011, p.4)

Therefore, Richardson claims, I cannot literally smell the piece of cheese on the table, but only identify it, via non-olfactory capacities – sensory and recognitional – as being the source of the odour I can smell in the kitchen.

It is this claim, that olfaction cannot by itself represent the material objects that emit odours, which the current chapter will focus on. But before moving on, it is worth briefly highlighting some apparently counterintuitive consequences of these sceptical views.

It would, it seems, be literally wrong to say that we can smell the subtle bouquet of a wine or the refreshing smell of eucalyptus, because we can only smell the odour these objects emit, not their source. We should rather, apparently, re-formulate such expressions in the following ways: ‘we smell a wine-like bouquet’, ‘we smell a eucalyptus smell’. Now of course, in light of some plausible philosophical theory, ordinary language intuitions may well have to be ignored or revised. But it is not obvious that the purported phenomenological data provided in support of the impoverished nature of olfaction are sufficient to do this. After all, if you wonder whether the milk in your fridge is spoiled, you will most likely place the bottle of milk under your nose and sniff it. And if you need your eyes and hands to help you in this task, nothing of consequence for the representational nature of olfaction follows from this, or so I shall argue. If you cannot identify by sight alone which spice is in a jar, smelling it will probably help you to find out. And if you smell, blindfolded and shackled, the aromas of a Chateau Haut-Brion 1986 you will naturally take yourself to be smelling the wine itself. Indeed, I contend that it certainly will not naturally appear to you in your experience that you are smelling merely wine-like odours, not unless you are already in the grip of a philosophical view about the nature of olfactory representation and olfactory objects.

These everyday examples, I think, at least cast some initial doubt on the view that, from the perspective of olfactory experience, odour sources are necessarily identified through other sense modalities, and reveal that in many cases smells alone have the last word about the nature and identity of their sources. (See also Mizrahi, 2014)[[3]](#endnote-3)

However, it is also important to highlight some potential ambiguities in the claims supporting this view about the limited nature of olfactory representation, for it is not always made sufficiently clear whether the view is to be understood as a phenomenological claim about olfactory experience, or as a functional claim about the nature of olfaction.[[4]](#endnote-4) Construed phenomenologically I shall argue that it is false, at least of the olfactory experience of wine. The truth of the view construed as a functional claim is rather less clear, as we shall see, but my focus in what follows will primarily be on the representational phenomenology of olfactory experience. A further lack of clarity concerns the intended scope of the view. It appears to be presented as holding true of olfaction or olfactory experience tout court and it is this claim that I shall take as my primary target. Should it turn out, however, that sceptics about the representational pretentions of olfaction are happy to allow certain exceptions to their general claim, including the example of wine on which I shall focus, I nonetheless think that the line of argument I present is valuable in illuminating some neglected and significant features of olfactory experience. [[5]](#endnote-5)

The strategy I will pursue in defending the representational capacity of olfactory experience is quite straightforward. First, we will take a close look at the nature and phenomenology of wine-tasting, which poses a prima facie counter-example to many of the claims about olfaction presented above. The phenomenological observations offered will, on the one hand, serve to diffuse some of the purported disanalogies taken to hold between olfaction and vision. On the other hand, they will also put in doubt the generalizability of certain conditions on representation that may hold only in the case of vision. In the process of addressing some objections, I will offer further justification for the claims made about our phenomenology by appealing to the role of expertise and cognitive penetration in both vision and olfaction, and to the multimodal nature of perception in general. Finally, however, I will argue for the significance of some features particular to olfaction that do serve to differentiate it from vision; namely, I will contend that the temporality, ephemerality, and valence that characterise much olfactory experience actually contribute to its representational richness and uniqueness.

II. THE OLFACTORY FIELD IN WINE

Here is the main claim I wish to defend. Wine is a complex structure of odours the olfactory experience of which involves both temporal and quasi-spatial characteristics, and can represent, identify and individuate the wine objects of which the odours are, in some sense to be spelled out, properties.[[6]](#endnote-6) Of course wine does not consist only of odours, since it also includes tastes and textures and, arguably, flavours. But its odorous constitution is, I will claim, what is represented in olfaction. More specifically, olfaction may not be transparent or represent spatially in precisely the way that visual experience is supposed to yet it can represent source objects – i.e. this wine - in virtue of the odours emitted. I contend that olfactory experience may be richly structured as a function of its object; or more precisely in the case of wine, as a function too of the relation that the subject bears to that object. The relation involved in this case requires some level of expertise, and the way in which experts experience wine, involving certain background cognitive conditions and patterns of attention, itself contributes to the nature of the representational content and phenomenology of the olfactory experiences involved.[[7]](#endnote-7) Moreover I claim that the olfactory structure of wine, as represented in olfactory experience, even exhibits olfactory analogues of the spatial structure of visual experience, including the characteristics of object identification and individuation, and occlusion. It also exhibits analogues of the temporal structure of music.

Wines – considered as individual substances in a particular bottle – can be thought of as the sum of their odours (and other properties), although they may also be conceived as the structure or substance in the bottle that instantiates odours as (dispositional) properties. Typically, the latter seems to be what philosophers have in mind when referring to the material source object that causes, but fails to be represented (solely) by olfactory experience. I suggest that these ways of thinking about the reference of ‘wine’ can be equally appropriate, given certain contextual and pragmatic aims. (see Todd, 2010) However, I will argue that, although normally the material object in the bottle requires other sensory modalities to identify and locate it in space, that, first, this by itself does not undermine the representational claims of olfaction; and second, that what counts as the ‘source object’ of olfactory experience is ambiguous and should not necessarily be identified just with the stuff in the bottle that is represented by vision as being distinct from the subject. As we will see, the source object that olfaction by itself represents can be thought of as the wine-as-experienced in olfaction, as well as the sum of the dispositional olfactory properties in the liquid in the bottle.

The first part of this defence consists simply in some descriptive observations about wine tasting that should be recognisable to anybody with some amount of expertise in this area. The role of expertise is important and will be considered in more detail, but the reliance on ‘mere’ observation and description ought not be construed as a weakness or limitation since, we should remember, the claims we are seeking to counter themselves derive what argumentative force they have from purported phenomenological observations. The example of wine tasting should also suffice to undermine the intended scope of sceptical claims about the nature of olfaction in general, even if it turns out, oddly enough, that wine is one of the very few actual counter-examples on the table.[[8]](#endnote-8) Nonetheless, although wine is a particularly useful example, I think that the overall picture of olfactory representation that emerges can be extended more generally to many if not most cases of olfactory experiences, though I will not pursue this further claim here.

Let’s begin with some simple observations concerning the least controversial element of smelling wine, its temporality. Perfumiers and vignerons alike talk of their products as possessing various aroma ‘notes’, and claim that these can be expressed or exhibited temporally. So perfumes can be designed to develop different aromas throughout the day on which they are worn, wine tasters talk of first and second ‘nosings’, and as wines change and develop over time in both glass and bottle, they emit primary, secondary and tertiary aromas, lending the experience of wine an important temporal structure. Importantly, this development, itself the partial result of an intentional act on the part of the wine or perfume maker, affects the ways in which the individual component aromas are perceived. They are perceived, firstly, as being a part of a structure and secondly, their place in the structure affects the way in which they themselves are experienced, much like the auditory experiences of individual notes are affected by their place in a melody. The awareness of the relevant intentions is generally important here, and forms one of the preconditions for expertise.

Vivian Mizrahi has argued that we should not consider odours as being temporally extended or having temporal parts. She states:

Unlike sounds, odours are not "creatures of time" whose identities rely on their temporal characteristics. Like our visual experiences, our olfactory experiences have a certain duration, but neither the visual, nor the olfactory objects are experienced and conceived as temporal entities. The identity of a smell is not anchored in its evolution in time. An odour can appear or disappear from our olfactory field, but it is wholly present at each moment we smell it. Odours, according to this analysis, are not intrinsically temporal entities. (Mizrahi 2014, p. 248)

However, in the case of wine at least, the olfactory objects – its aromas, and the complex wine-object constituted by them – precisely are produced, experienced and conceived as, in part, temporal entities. They are in this respect directly analogous to musical notes and structures, since the temporal relations these aroma notes bear to each other affects the phenomenal character of the individual aromas themselves as well as the overall character and representational content of the odorous objects they constitute. So, the odours are perceived as being part of an intentional temporal structure, and their olfactory characteristics are affected by their place in this structure. In other words, even if Mizrahi is right that odours do not themselves have temporal parts, their phenomenal character is partially determined by their location in the temporally structured odorous object, the wine.[[9]](#endnote-9)

The change and development of aromas clearly has some basis in the temporal nature of chemical volatility, so smells in complex objects like wine can be structured and arranged in the ways they obviously seem to be in order to manifest the sorts of qualities of which wine is capable, and for which it is valued. Some of the qualities intrinsic to wine are, therefore, qualities of order and temporal transition. A good wine, for example, will open up after time in the glass to reveal new layers of properties – the extremely rich and powerful cassis, cedar, and smoky first nose of a Chateau Haut-Brion 1986 will give way to subtler aromas of chocolate, spices, and roses, all of which will hint at the burly but elegantly rounded palate of powerful but smooth tannins, concentrated black fruit, clear steely minerality, and incredibly long finish. A temporal depth of structure has been revealed, and the wine is assessed according to, amongst other things, the intensity, subtlety, and balance achieved amongst the rich and complex interplay of its many layers of tastes and smells.

These are simple examples of everyday occurrences when wine tasting, and go some way towards undermining the idea that smells are necessarily free-floating, unrelated and unstructured and too easily and confusingly mixed. Indeed, wines are clearly capable of generating expectation and surprise in virtue of the ways in which their odours are structured. A wine can, for instance, fail to live up to the complexity detected on the first nose when eventually circulated around the palate (or for that matter garnered from prior knowledge of its production); conversely, it can promise such complexity and after some time deliver or exceed it.

I also think we attribute not merely a temporal structure to our olfactory experiences of wine, but also in some sense a quasi-spatial ordering to it as well; we can and do experience our olfactory field as, indeed, a field that can be scanned and that admits of layering and depth. For example, in the case of wine tasting, we often say things like: ‘I can detect the buttery oakiness lurking beneath the first powerful layer of fruit’ or ‘the steely minerality is furled within the velvety, floral mid-palate’. This is directly analogous to our experience of the visual field that we can attentively scan. It is not, however, merely temporal because we can seek to ‘place’ the characteristics in, as it were, the olfactory space of the mouth/nose and scan their interrelations.

Such olfactory experiences seem to bring in their wake an analogue of the possibility of occlusion that is normally taken to be an essential part of the representational capacity of visual experiences. Olfactory experience can, that is to say, accommodate amodal experiences.

There are two ways in which occlusion appears in visual experience. First, vision does not merely represent the facing surfaces of objects, for I can see that an object is a cube without at once seeing all of its faces, in the sense that one normally sees three-dimensional objects as having surfaces that are currently occluded, hidden from view. Second, one can also, for example, see that the object is a cube even where it may be partly occluded by another object. Sounds, too, can be heard as hiding or masking other sounds ‘beneath’ them, and tactile objects can be experienced as extending beyond the actual point of contact with them. In at least some of these amodal experiences it appears to us that, as Sartre puts it, the ‘object of perception constantly overflows consciousness’.

The second type of occlusion just mentioned is captured by the quasi-spatial ordering of the olfactory field already discussed, but I would also argue that smells can be experienced as having features that might yet come to be experienced, as possessing overflow, in addition to appearing to be hidden by or hiding other smells.[[10]](#endnote-10) Certain properties of aromas, such as the ‘steeliness’ or ‘buttery-ness’ mentioned in the same descriptions above, can appear to be, for example, fuller or rounder than others. The buttery-like character of the oak aroma appears to take up more ‘room’, to be more amenable to further exploration than, for example, a ‘thinner’ steely or crispy mineral-like aroma. Admittedly, such experiences of occlusion do seem a little distant from their visual counterparts, but they can exhibit a version of Sartrean overflow, and we can mark this by attributing certain properties to them and by attentively scanning them.

A more robust form of overflow, however, can be seen in relation to the expectations we form in the olfactory experience of exploring a richly structured olfactory object like wine. Just as we form visual expectations about a solid material object as we move around it so too we form certain expectations, both quasi-spatial and visual, as we attend to the array of odours presented in our appreciation of wine. We expect the overripe, jammy red fruit detected on the first orthonasal encounter to continue retronasally; we detect a hint of delicate floral layers masked by the heavy oak, or by bottle mustiness, and hope that they will later reveal themselves fully.[[11]](#endnote-11)

However, it is important to stress that these remain mere analogues of visual occlusion and spatial perception, and the differences are phenomenologically salient. On the one hand, if, for instance, we are not disappointed in our expectations, we will have the positive feeling – in the case of a pleasant or good wine – of encountering a continuous, well-structured object that may or may not contain (positive or negative) surprises. Such valenced experiences are bound up with the expectation of enjoyment, or the trepidation at the prospect of imminent displeasure, which is clearly an essential part of our olfactory approach to an intentionally made object like wine, but is also, I suspect, often part of our ordinary acquaintances with other olfactory objects. It is not, I take it, an essential part of most paradigmatic visual experiences, although it is no doubt true of some (e.g. the visual arts; design; strong colour preferences).

On the other hand, many of the occlusive experiences in olfaction are temporal in nature and overflow should be understood in such cases as involving temporal rather than quasi-spatial representations. For the requisite attentiveness at play in these complex olfactory experiences is also required to keep track of the aromas in olfactory time. As I said above, the olfactory experience of wine is structured in and over time, and the phenomenal character of individual aroma notes is determined by their place in the odorous object (the wine ‘melody’), the experience of which is temporally extended. At the same time, individual notes have places like notes in a chord at a time.[[12]](#endnote-12)

An interesting feature of our olfactory experiences of wine, it seems to me, is thus that, allowing for certain object-imposed constraints, they admit of relatively flexible patterns of attention that can help structure our experiences temporally or quasi-spatially or both, and that allow for both melodic and chord-like experiences of smells. That is, the wine itself seems to be comprised of these structures. This is a characteristic that paradigmatic visual experiences don’t seem, on the face of it, to share, although attention does seem to have an important impact on the phenomenology and representational content of at least some visual experiences. Again, I will return to some of these issues in the final section of this chapter.

Of course, it is unsurprisingly difficult to articulate clearly the experiences that make sense of these more or less metaphorical descriptions. Yet neither this difficulty, nor the ineliminable role played by metaphor in describing and indeed shaping our experiences of wine, suffice to cast suspicion on the correctness of so describing them. For, remember, these are claims about the olfactory phenomenology of odorous objects like wine, and the role played by metaphor in articulating and shaping this phenomenology is not something that we can readily dispense with or reduce to something else (see Todd, 2010 ch. 2; Sibley, 2001).

We can plausibly say, therefore, that the olfactory experience of complex odorous objects like wine is in some respects quasi-spatial as well as temporally structured, and that philosophers are wrong to think that we cannot place smells in some kind of locational order. There is, however, an important qualification to be made to the foregoing claims.

The olfactory experiences of wine that I’ve been discussing generally require no small amount of experience and expertise. First, we need to acknowledge, and my account presupposes, that our olfactory experience, like our visual experience, is cognitively penetrable. I have argued at length for this elsewhere and do not have the space to repeat these arguments here. (Todd, 2010) The central idea is that what we perceive and experience in wine is not anchored solely in basic ‘un-interpreted’ perceptual properties, for it is contoured and coloured by a range of background factors including knowledge, experience, culture, imagination, categorisation, comparison, intention, and so on.

We must, therefore, distinguish the analytic experiences of experts from non-experts, for only the former are trying to make sense of the taste and smell experiences as really belonging to the wine, to detect just what sort of fruit one can smell in the concentrated first nose, whether it is ripe or overripe, and whether it is present also on the palate; to understand whether and how the wine maker has succeeded in balancing the subtle, young, floral and elegant primary aromas with the heavy, ripe, fruity and tannic mid-palate. Is there enough alcohol and extract to give the wine body, or has the rich, concentrated nose that promised a full and complex wine, deceived, belying the tough tannins, and unbalanced, light-bodied nature of a rough and overly alcoholic wine? These are questions and forms of attention that shape the way in which an expert tastes, that shape the nature of her taste and smell experiences, and that underpin the idea that the aim of such tasting is to detect the tastes and smells that are, in some sense to be discussed, really there in the wine to be detected.

Smelling, of the kind that gives rise to richly structured olfactory experiences of wine, is thus largely an active experience, requiring attention, concentration and training, such that our olfactory assessment of a wine is essentially experiential but not reducible to simple sensory experience, the unmediated ‘feeling’ of taste and smell sensations. Expertise affects what one perceptually experiences, in virtue of the various background assumptions and expectations that form the background framework that structures one’s smelling and tasting. Experienced tasters will learn more from their sensations about the nature of the wine than non-experienced tasters, and tasting with knowledge will allow one to experience the array of different chemical compounds that is the material object in the bottle as possessing a structure that can be appreciated and understood.

It is also worth noting that only certain ‘fine’ wines will, in virtue of their complexity, reward the attention we pay to them – the better the quality of the wine, the better the quality of the experience of drinking it. This is important because the olfactory qualities of such wines are not simply incidental features of them but are in large part the result of skill and intention. Indeed unless odours could be structured in the ways I have been trying to describe, we would not be able to have, let alone manifest, intentions to create products with these properties or any veridical experiences of the success of such intentions.

One might wonder at this point, given the invocation of expertise, whether i) olfactory experiences can be veridical in the way that visual experiences are held to be, and ii) whether I am illegitimately sneaking into olfactory experience those extraneous features that, according to the sceptical position I am targeting exclude olfaction by itself from representing source objects. We can address (i) now by looking more closely at the object of olfactory representation, but a discussion of (ii) must wait yet a while.

There is indeed a notion of correctness at play in our olfactory experiences of wine, though the issue is rather complex. I have developed these thoughts at length elsewhere (Todd, 2010), but here are some brief observations that may be helpful in understanding what is meant by the claim that in smelling (and, of course, tasting) a wine with understanding we are, partly via the odours that occur in our olfactory experiences, representing the wine itself and not just its odorous parts.[[13]](#endnote-13)

Recall the claim above that wine can be considered either as the sum of its odours (and other non-odorous properties) or as the underlying substance of which these odours are properties; that is, dispositional properties of the liquid in the bottle. For the moment, from the point of view of olfactory experience, we can say that wine is represented as the structure comprised of these odours-as-experienced. So we can say that odours are indeed partly the objects of our olfactory experience, but they are also experienced as parts of the wine that you represent in virtue of paying attention to them (i.e. the odours). Our experiences of wine therefore have (at least) a dual intentional character, one that also allows for attention to oscillate between individual odours – understood as particulars – and the odorous structure of which they are constitutive parts, as well as to attend to both simultaneously i.e. the one in virtue of the other. (Cf. Lycan, 1996)

It follows from these observations that the wine object considered as the source object of odours is not just the stuff in that bottle in front of me but is (also) an experiential object, the result of a relation between my smelling and the properties in that bottle that give rise to the odours and odorous structure that I detect. So, my olfactory experience represents the wine via (in part) the odours I detect – in the dually intentional way I just signalled – even where the material substance in the bottle over there might require me to use, say, vision to locate it accurately in the environment.[[14]](#endnote-14)

This idea can perhaps be made clearer by considering a view on the representation of sounds and their objects articulated by Matthew Nudds (2001). He considers and rejects the view that we can refer to ordinary physical objects on the basis of hearing the sounds they produce; that is, the view that our awareness of an object can be partly constituted by awareness of the sound it produces. Nudds argues, against this, that because sounds are not properties of their sources we should instead “explain many cases of pure auditory awareness of the source of a sound as a kind of deferred ostension, as picking out the source of a sound via picking out the sound itself...when one hears an object on the basis of pure auditory experience one does so by hearing the sound that it produces, but one does not hear it as producing that sound”. (p. 222)

Nudds is thinking here of bi-modal experiences in which vision and audition both appear to play a role in our awareness of the physical source objects of sounds, without thereby denying that we can legitimately be said to hear objects as well as the sounds they produce. I am to some extent sympathetic to this view and will return to it later when I address problem (ii) noted above. However, it is crucial to note that ‘source object’ is ambiguous between two equally valid ways of understanding it.

Considered as the odorous object I am aware of in olfactory experience, something like the view that Nudds rejects for sounds is correct of odours: we represent the wine via the odours that constitute it. Considered as the material object in this bottle in front of me, the ultimate source of the odours I detect, our representation of the wine may generally be multi-modal, at least insofar as vision or touch might bear some responsibility simply for our recognitional ability to pick out such objects in the spatial environment. Nonetheless, this need not impugn the idea that olfaction can by itself represent the wine, considered as both the source and sum of the relevant olfactory properties, namely the dispositional properties in the bottle and the odours that are detected in olfactory experience.

So what emerges from this is, in fact, quite a complex three-fold representational structure in olfactory experience. We can represent wine odours, the wine object-as-experienced in virtue of experiencing these odours as structured, and the material source object, considered as the collection of the dispositional properties we become aware of partly in virtue of this latter. What exactly we represent in any given experience will depend on what we focus attention on, but we can represent and probably normally do represent all three types of object more or less simultaneously. Indeed, it is important to note that when confronted with a complex object like wine, it takes some effort to focus attention merely on the sensations of individual odour experiences and their inter-relations.

It is worth comparing this proposal to the recent account given by Budek and Farkas (2014), who argue that the object of perceptual experience is whatever is phenomenally present to us. This allows them to say that some olfactory experiences take odours as their objects, and some take the source objects of odours as their objects. They reject, however, Lycan’s claim that olfaction always has multiple objects, representing both odours and their source objects via these odours. I think it is helpful to adopt the suggestion that we should understand ‘object’ here as whatever is phenomenally present to us in a perceptual experience, and this will ultimately allow us to say that the material source object can be represented in olfaction. My claim then is that olfaction need not take multiple objects, but that when it represents material source objects it does so via an awareness of odours and therefore does in such cases represent multiple objects.

If this is right, then olfaction can also be veridical in just the way that philosophers have held belongs properly only to vision. Such experiences, that is, can possess a notion of ‘correctness’, allowing us to distinguish objects in the world from our experiences of them and thereby granting to our judgements of wine some measure of objectivity. Of course, certain further cognitive background conditions must be met in order for such experiences to take place: we need certain conceptual abilities, expertise, experience and so on, in order to smell this particular wine through its odorous structure. But, assuming the possibility of cognitive penetration, olfaction is not different from vision in this respect. There can, in other words, be smelling-as just as there can be seeing-as and hearing-as, because the odours constituting wine are not experienced as mere sensory objects independent of other odours in the overall structure. If smelling were not like this it would be hard to explain, for example, how experts can by smelling and tasting accurately perceive a wine as being of a certain type, a Chateau Margaux for example, or as alluded to earlier, make veridical judgements concerning the intentions of wine-makers.

In respect of veridicality, then, the idea is that the odours may, but need not be, experienced as being possibly different from the chemical properties in the material object that are their source. Our judgements about wine, considered from this point of view, are in part about our experiences, and yet some experiences of wine are more appropriate than others insofar as the substance in this or that particular bottle is capable of giving rise to some range of more or less appropriate and rewarding experiences against a background of the ‘right’ or ‘appropriate’ cognitive and appreciative conditions. In these circumstances, our olfactory experience appears to us as possessing veridicality conditions.

III. REPRESENTATION AND RECOGNITION

Here are some potential objections to the account I have just sketched, the third of which represents the main target of this chapter.

1. In the examples I offered above, I’ve implicitly included not just smell but also taste experiences, such as the body, texture, complexity and balance of the wine on the palate. One might worry that although there may be some sort of spatial structure involved in tasting wine in virtue of the tactile nature of such experiences in the mouth, this doesn’t show anything about the structural nature of odours in virtue of which olfaction per se can be representational.

 First, it must be remembered that the experience of the wine in the mouth involves orthonasal olfaction. Although one can to some extent experientially differentiate pure tactile ‘mouthfeel’ properties from orthonasal aromas, the case for gustatory qualities is not so clear-cut. As we are increasingly learning, our perception of flavour is a complex, multi-sensory construct in which olfactory, gustatory, tactile and other sense modalities are inextricably intertwined. (e.g. Auvray and Spence, 2008; Smith, 2012) So our complex, multimodal flavour experiences are partly due to smell as well as to gustation and touch. Any attempt to siphon off olfaction as the non-representational odd one out here would be empirically difficult or impossible and from the point of view of our flavour phenomenology would look suspiciously ad-hoc.

The upshot is that our complex olfactory experience of wine is not of ‘mere’ odours floating will-nilly and indeterminately around/in our noses. Again, as I have said, we experience them as part of a complex structure, a structure that affects the way in which they are perceived, much as our perception of musical notes is affected by their place in a musical structure such as a melody, where their relationship to other notes is crucial to the way in which we hear them.

2. It might, again, be objected that all this talk of layering and occlusion and a quasi-spatial olfactory field is just metaphorical, whereas it literally applies in the case of vision.

On the one hand, I see no reason to accept that spatial ordering – as opposed, say, to temporal ordering – should be a necessary condition on genuine perceptual representation. Why take vision as the model of representation to be applied to other sense modalities? I return to this point below. On the other hand, however, even if these allusions to what I’ve been calling the quasi-spatial nature of the olfactory field are metaphorical, this seems irrelevant to the main issue. For insofar as they appear in our olfactory phenomenology to be of a spatial-like nature, and insofar as these spatial metaphors are an ineliminable part of our olfactory experiences and judgements, at least in the case of wine, we can justly say that olfaction can involve spatial-like as well as temporal ordering and in doing so it satisfies some of the main constraints on representation.

3. Why think, in spite of what I have been arguing, that our olfactory experiences as such actually represent this particular wine, as opposed to just some generally located array of odours that, by non-olfactory means, I associate with and attribute to the glass or bottle in front of me. Such an objector could insist, for instance, that if multiple wines of similar but non-identical character were presented to us blindfolded we would be unable to perform the relevant source object identification through mere olfaction alone. This, of course, is the heart of the scepticism discussed at the beginning of the paper and the main problem at which my account is targeted.

It seems to me that there are two assumptions underpinning this objection that we should now assess. First, there must be some view about what is and is not a proper or essential part of olfaction or olfactory experience, and as we are about to see these are not the same thing. Second, there must be some answer to the question of what sort of object identification counts as genuine representation, which itself assumes some view about the nature of representation and the nature of perceptual objects.

The sceptical views at issue appear to be committed to the idea that genuine representation involves object identification, and object identification is conceived of as necessarily involving spatial and distal location. As such, they hold that olfaction or olfactory experience cannot by itself achieve this, and requires the aid of other senses and/or certain non-sensory recognitional capacities, such as memory or conceptual association. But why think that genuine representation in the case of olfaction must be like this? And how do we determine what counts as an essential part of olfaction/olfactory experience and what doesn’t?

The only philosopher I know who has attempted to provide a comprehensive answer to these questions is Tyler Burge (2010). The most noteworthy aspect of Burge’s account is that it aims to give an empirical-functional rather than phenomenological explanation of objective perceptual representation. Burge identifies perception with representation, holding that perception is objective sensory representation. It is objective in that it essentially involves the capacity to distinguish patterns of sensory registration that are particular to the subject from genuine features of the environment. Burge calls this ‘objectification’ and he maintains that all perception is necessarily objective insofar as its function is to be veridical with respect to the world, to systematically and structurally distinguish subject and object. This emphasis on systematic and structural objectification, it turns out, is crucial, since the kind of objectification essential to genuinely representational systems must be the result of what he calls ‘constancy mechanisms’ that are an essential part of the perceptual system itself. Perceptual constancies are:

capacities systematically to represent a given particular or attribute as the same despite significant variations in proximal stimulation—despite a wide variety of perspectives on the particular or attribute. Such constancies are explanatorily associated with systematic filtering mechanisms that yield sensitivity to a single environmental particular or attribute. (p. 274)

So, Burge argues that perceptual constancy mechanisms are necessary and sufficient for perceptual objectification and representation, and thus for a system to count as perceptual. (p. 413; p. 408). The key distinction at work here is that between a perceptual system and a merely sensory one, one that involves sensory registration of stimuli but no representation. A system counts as merely sensory when there is no explanatory need to attribute representation of distal attributes, as distinguished from registration of proximal stimulation. Such systems thus lack perceptual constancies, and it is this that marks, for Burge, the distinction between, for example, vision on the one hand, and olfaction on the other, for only the former but not the latter is a perceptual system: “There are no systematic operations in these systems that are illuminatingly explained in terms of their systematically and structurally distinguishing aspects of sensory registration from specific aspects of environmental reality, or in terms of a capacity to get representata right.” (p. 421)

In explaining sensory systems there is, as such, no need to invoke states with veridicality conditions, for: “There is no separation of an objective environmental condition from sensory registrations of proximal stimulation... No spatial relationships are represented. Only the type and intensity of the proximal stimulus are sensed. Spatial location is determined by repeated sampling techniques.” (424)

These remarks lead to the qualified claims that olfaction is ‘largely’ a non-perceptual, and thus non-representational sensory system, and that perceptual constancies and hence objectification are not ‘prominent’ in olfaction. He says:

Ordinary language sometimes portrays the taste of wine or the smell of banana as perception. Such cases are usually [italics mine] to be assimilated to belief and propositional memory derived from non-perceptual sensory states. The representation is not at the purely sensory level. The sensory system responds to certain types of proximal stimulation that in fact come from such things as wine or bananas. Discriminations can be either generic or fine-grained. But, except for the special cases noted with respect to smell, I know of no perceptual constancies in the gustatory or olfactory sensory systems themselves. Scientific accounts of their operations do not, for the most part, [italics mine] make non-trivial appeal to sensory states with veridicality conditions. I believe that ordinary language tends to blur natural psychological kinds. (pp. 415-16)

It is important to note that Burge’s hesitation concerning the contingently non-representational nature of olfaction seems to cohere with the observation that there are “surely borderline cases between perceptual systems and sensory systems that merely register information.” (p. 410) He thus admits that olfaction can involve objectification, but that this is not the result of perceptual constancies and is the consequence rather of memory and conceptual association, which presumably are not part of the olfactory system as such.[[15]](#endnote-15)

In this light, it is legitimate to wonder how one determines what is and is not part of the olfactory system itself. After all, Burge’s argument rests on the idea of something’s being explanatorily necessary to account for a system’s functioning; that is, we do not need to appeal to veridical, perceptual representation of the environment in order to explain the operation of a sensory system like olfaction. Is the delineation of a perceptual system a purely empirical matter, of behaviour or of neuro-anatomical mapping for example?

On the one hand, if it’s not an empirical matter, there’s a danger that what counts as representation may beg the question in favour of certain characteristics particular to the visual system – namely, distal, spatial location – which Burge takes as a model, leaving us with a largely semantic dispute about what counts as genuine representation. For, as I have argued, olfactory experience seems to satisfy at least many of the relevant requirements. On the other hand, if it is an empirical matter, then the empirical evidence which Burge himself makes reference to is not as clear-cut as might be wished.

Recent papers (see e.g. Stevenson & Wilson, 2007); Gottfried (2005) and (2010); Frasnelli et al. (2009)) present a range of evidence showing the sophisticated ability of olfaction to recognize odour objects, including the capacity to identify object constancies, locate and differentiate objects, and bind disparate odours into olfactory objects. Olfaction too, therefore, possesses perceptual constancy mechanisms. Moreover, the neurological architecture responsible for these abilities seems to some extent to be particular to the olfactory system, relying as it does on the piriform cortex. As such, we seem to be presented with a system that is not merely sensory insofar as it does seem to involve, contra Burge, a systematic, structured capacity in the system itself to “separate registration of distributions of proximal stimulation from states that specify, and are as of, certain environmental attributes.”

Nonetheless, as these authors themselves make clear, the olfactory object-recognition system involves a complex process of pattern-completion and pattern-recognition mechanisms that rely, at least in part (but certainly not wholly) on familiarity, memory, and even cultural differences. (see esp. Stevenson and Wilson (2007, pp. 1824ff) In particular, olfaction seems to depend largely on how familiar patterns of odours are in order to secure the kind of matching involved in discerning olfactory objects. And thus as Matthew Nudds (2012) points out in his review of Burge, this may seem sufficiently different to the way in which perceptual constancies operate in the visual system to guarantee objectification, and thus fail to constitute direct counterexamples to Burge’s claims about olfaction. The perceptual constancies apparently involved in olfaction are thus not the right kind of constancies to secure genuine objectification. Why not? Presumably because we can thereby give an empirically adequate account of olfactory object recognition that does not appeal to genuine representation as Burge defines it.

Burge’s paradigm of objectification and hence representation is the visual system, in which the ability of this system to distinguish distal stimuli from proximal sensory registration, and to do so by distinguishing features of the proximal sensory registration which correlate with those aspects of the environment from features that do not is absolutely key. (e.g. p. 347; p. 355; p. 359) Distal, spatial representation is thus the central representational modus of vision.

Now, it would be more than surprising if it turned out that olfaction in fact did represent spatially in just the way that vision did. Indeed, it’s hard to make any sense of what this could be like given the actual nature of olfactory representation. But then, why think that the relevant notions of perceptual constancies and perceptual objectification ought to be stipulatively constrained by the specific type of distal object identification peculiar to vision? After all, in olfaction we have a differentiation of subject and object, we have object constancies, and we apparently have neurological regions specifically devoted to the operation of olfaction in securing object recognition.

The key objection to olfactory representation, therefore, must again be the role played by non-olfactory, conceptual and associational capacities in olfactory object recognition, so let us finally turn to confront this head-on.

There are two main reasons for resisting the idea that olfaction itself cannot represent source objects, even where ‘source object’ is to be understood in the sense of the material objects of which odours are dispositional properties. First, if we omit cognitive and associational features from an account of the representational capacities specific to a particular sensory modality, then we are forced to admit that vision too can only be representational insofar as strictly non-visual elements such as memory and conceptualization play no role in its functioning or phenomenology. Any such explanation, however, would leave only relatively low-level visual experience as genuinely representational, and although there may be many reasons to accept this result, it risks unacceptably limiting the notion of representation, excluding for example any cases of cognitive penetration and higher-level visual functioning.[[16]](#endnote-16)

This brings us to the second crucial problem. As a number of other philosophers have remarked (e.g. Budek and Farkas (2014); Roberts (2015)), if the idea behind these sceptical claims is that some sort of judgement or unconscious inference is involved in identifying and locating source objects, the phenomenology just does not seem to support this. Recall that objectification for Burge is a functional rather than phenomenological notion, but we have hitherto been primarily concerned with olfactory phenomenology, olfactory experience. Such experiences, I have argued, do in fact fulfil many of the requirements that Burge places on representation, and in particular, it seems that from the point of view of experience there is no good reason to exclude the various cognitive background factors involved in the cognitively penetrated experience of experts from olfactory experience as such.

If we reflect on our olfactory experiences, that is, the sceptical views of olfactory representation are guilty of distorting the way our experiences seem to us to be. In doing so, they depend on assumptions about the distinctness of the senses (thought of functionally and phenomenologically) and their proper objects, which are, increasingly, being questioned by philosophers and by empirical research.[[17]](#endnote-17) As Matthew Nudds (2001), for example, points out, in our daily experience we do not normally distinguish objects and their features in terms of the different senses we use in perceiving them. The idea that we can or should do so, and can thereby identify what is particular to olfactory experience, and hence to olfactory representation, betrays a misguided view of how perceptual representation in general works. Similarly, Tom Roberts argues that the phenomenology does not support the view that:

distinct sensory channels deliver distinct perceptual experiences, the co-occurrence of which inspires the judgement in question (for instance, that there is visual awareness of the mouth of a bottle, simultaneous olfactory awareness of a scent, plus an inference to the belief that the latter emanates from the former). It is not clear that separate olfactory, visual, and tactile elements can be phenomenologically decomposed in this way; instead, a multi-modal episode seems to generate an integrated conscious awareness as of a world of material entities and their properties. (Roberts 2015, p. 15)

Thus, even if we allow that olfactory experiences by themselves often or even generally fail to represent the spatial locations of the source objects of odours, that does not yet seem to be a sufficient reason to conclude that our olfactory experiences of wine cannot represent the source object, if not in exactly the same way that visual experiences are held to represent objects in the world, then certainly in ways that are genuinely representational, that have as their phenomenal objects the things in the world that are emitting the odours. Of course, if one were utterly unfamiliar with wine, one might smell odours without them being experienced as being of wine, and hence conceptualised as such. But all this demonstrates is the possibility of failing to appreciate the wine as wine, and those smells as wine smells. When smelling with the right kind of knowledge and experience, however, we are truly representing the odorous object that is the wine – conceived either as the object-as-experienced in olfaction or as the material source object – and our smell experiences will constitute knowledge of it, in the ways outlined earlier.[[18]](#endnote-18)

In short, from the point of view of olfactory experience, there seems to be no compelling reason to deny, and many compelling reasons to accept that we can represent the source objects of the odours we smell in virtue of representing those odours as the odours belonging to and (partly) constituting the objects that emit them. If one insists that the representation of those source objects requires the aid of other senses and/or cognitive capacities, I would reply a) that the notion of representation invoked by the objector must assume that spatial location and recognition are required for genuine representation, an assumption based on an unwarrantedly visuo-centric model of perceptual representation that I rejected above; and b) that the way in which perception generally is multi-modal and cognitively penetrated does not undermine, and may even be taken to support the idea that olfaction itself can represent source objects, where such objects are phenomenally present in our overall olfactory experience.

It seems to me that any further objections made to these claims must rest either on fundamentally different notions of what it is for perception to represent and/or on theory-dependent views about the proper objects of the different senses. Pursuing these difficult topics, however, would take us well beyond our current scope.

Finally, I would like to examine some further key differences between vision and olfaction in virtue of which the representational capacity of olfaction is both distinctive and surprisingly rich.

IV. ATTENTION, TRANSPARENCY AND EPHEMERALITY

I claimed at the beginning that olfaction can represent source objects in virtue of the odours emitted, but that it is not transparent in the way that visual experience is (or more precisely, can seem to us to be). We can, in olfaction, attend to odours as such and to their various ‘properties’ (e.g. intensity; ephemerality; subtlety etc.) and when we do so we might claim that olfaction represents odours transparently. We are not, that is to say, aware of any other intrinsic (qualia) properties of our olfactory experience above those properties pertaining to the representational contents of such experiences i.e. the odours. However, when we represent the source objects of odours, as I have argued is the case when confronted with a complex and structured odorous object like wine, we experientially represent those objects via the odours that constitute them in terms of a structured olfactory field. [[19]](#endnote-19)

One helpful way to think about this is via an analogy with imagery. We can imagine all sorts of things using imagery, where the imagery itself is not the object of the imagining, but rather the ‘mental paint’ in virtue of which we imagine those things; although, in cases where we are attending to an image, we could say that our imagining is transparent to that image.

Is the wine - considered either as the olfactory object-as-experienced or as the sum of the dispositional properties in the bottle – transparently represented via our perception of odours in olfaction? I’m inclined to think not, firstly because we are generally aware of the odours in virtue of which we represent their source object(s) in the two-fold (or even three-fold) intentional way outlined above.[[20]](#endnote-20) Secondly, because of the role that attention plays in our olfactory phenomenology. Let me explain.

One way to capture the nature of olfactory representational content is to look at recent work on the role of attention in perception. Studies have shown that when viewing certain figures, focussing one’s attention alternately on contrasting figures demonstrates an increase in the prominence or salience of those figures. Indeed, this feature of attentional focus should be evident from your everyday experience. Arguably, the kind of prominence or salience added to perceptual experience by attention is – and appears to us, at least on reflection, to be – a feature of experience rather than a property of the object perceived. Using a similar example but for different reasons, Sebastian Watzl (2011) has recently also argued that the prominence that is characteristic of an attended object is, unlike colour, not experienced as a property of that object, which it has independently of our attending to it. He characterises the nature of attention in the following way: “consciously attending to something does not just consist in being conscious of a certain way the world appears to be (it has a partially nonattributive phenomenology)”. (p. 153)

These observations are useful for considering the role that attention plays in the experience of temporality and ephemerality in wine. First, to the extent that odours are, indeed, relatively ephemeral objects, and odorous objects such as wine are experienced as temporal structures, olfaction in such cases requires more in the way of attentive resources than, for example, ordinary cases of visual experience. Indeed sniffing seems generally to involve more physical and psychological effort than looking. To that extent, therefore, the partially non-attributive role of attention should be more evident to us in the case of olfaction, and so too the relative lack of transparency involved in such attentive experience. Second, these features of olfactory experiences can lead us to pay attention to, and appreciate, the ephemerality of the experience itself.[[21]](#endnote-21) Some of these experiences are, I think, closely linked to the experience of absence.

Anna Farennikiova is one philosopher who has recently defended the idea that we can have genuine visual experiences of absence, where: “visual experience of *O*’s absence consists in an object-level mismatch between *O*’s template [in the form of an image from memory or imagination] generated by visual working memory and a percept of the observed stimulus.” The mismatch at issue here, and the relevant projected imagery, arise from certain expectations that we have about the world, and at least some such expectations require concepts and expertise. (Farennikova 2013, p. 444)

I think that wine tasting presents us with examples of olfactory experiences of absence. As I mentioned briefly above, the temporal and quasi-spatial structure of wines are clearly capable of generating expectations, and in smelling a wine I may expect and project olfactory imagery that results in a mismatch. The examples of olfactory occlusion I gave earlier are useful to bear in mind here, but to take a couple of further examples: I expect a certain wine to contain detectable oak, but I don’t smell it; I smell a lot of ripe fruit that leads me to expect a big-bodied beast of a wine, but instead it turns out to be quite austere and restrained. Expert tasters can, as it were, smell and taste latent properties in a wine, detect how these might develop and mature and predict the ageing potential and olfactory development of the wine. Is smelling latent properties or potential development the same thing as smelling absence? In part yes, although such absence detection in this case does not necessarily seem to be the result of a mismatch but is perhaps more akin to the property of ‘overflow’ discussed earlier.

In any case, I contend that some experiences of smelling absence are linked to the experience of ephemerality in wine in virtue of the fact that awareness of the latter depends in part on prior experience of the former, as well as on the awareness of the temporal ‘overflow’ of odours themselves into absence – the fact that they are fleeting where this fleetingness is manifested in the phenomenology of ephemerality.[[22]](#endnote-22)

To illuminate this idea a little more, it is worth considering closely related observations about musical experience. Matthew Soteriou, for example, in discussing the phenomenon of hearing silence, quotes C. B. Martin in suggesting that in order to experience the notes of a melody, you need to hear the absence outside it, where this experience itself is informed by memory and expectation:

Starting to experience in a certain way does not obviously entail experiencing something of a certain sort starting. I need to have now, as the first note begins to sound, an awareness that just before now I was aware of silence... pips are presented to us as discrete only in virtue of each one being preceded and followed by a relevant silence. We have to be aware of this silence, this non-sounding, as such if we are to be aware of the discrete sounding pips. And the pips will be perceived as further apart or closer together in time depending on how long these silences are. Perceiving silence is not the absence of any awareness, but is itself an intentional achievement. (Quoted in Soteriou (2011, pp. 190-91)

And, conversely, Soteriou suggests that if the subject does not have an auditory experience of the silences between the sounds, then arguably the subject does not hear the temporal boundaries of the sounds. We need to experience the silence before a sound starts and after the sound stops in order to hear its stopping and starting.[[23]](#endnote-23)

Similarly, Elisabeth Margulis (2007), citing a range of empirical studies, argues that experiences of music during silent periods demonstrate the active, participatory nature of musical listening. Indeed, she claims, some experiences of musical silence induce in the subject episodes of “meta-listening,” in which the music seems to “purposefully place listening habits or beliefs on self-conscious display to the listener, weaving this into the fabric of the aesthetic object.” (p. 274)

Drawing on these insights, we can say that the olfactory experience of a temporally and quasi-spatially structured olfactory field, provided by an object such as wine, sets up certain expectations – of the type that allows for amodal experiences – and patterns of attention that utilize memory, that are guided by the ephemerality of odours themselves, and that lend to our phenomenology something like the intentional characteristic of listening ahead, which we find in musical experience. As in musical experience, appreciation and understanding, the experiences of absence and ephemerality are closely linked in the olfactory experience of wine, and these also help us to attend to and appreciate the experience of ephemerality itself; which brings us to the final point.[[24]](#endnote-24)

The ever-changing nature of our olfactory experience, involving constantly changing patterns of attention, expectation, and surprise, is also a crucial source of the value of olfactory representation. The awareness of ephemerality itself provides part of the basis for the pleasure of savouring involved in olfactory experience, and I would argue that this awareness actually makes the representation and individuation of the odorous object – the wine – more pronounced, just because it is so ephemeral and thereby requires such attentive resources. We take greater effort to secure such objects in our perception than is normally the case in vision. This may also in part explain why olfactory experiences, for all their ephemerality, have such permanent places in our memory.[[25]](#endnote-25)

REFERENCES

Auvray, M. & Spence, C. (2008) ‘The Multisensory perception of flavor’,

*Consciousness and Cognition* 17, pp. 1016-1031.

Batty, C. (2009). ‘What’s that smell?’, *Southern Journal of Philosophy,* 27, pp. 321–

348.

Batty, C. (2010a). ‘A Representational Account of Olfactory Experience’, *Canadian*

*Journal of Philosophy,* 40(4), pp. 511–538.

Batty, C. (2010b). ‘Scents and Sensibilia’, *American Philosophical Quarterly*, pp. 47,

pp. 103–118.

Batty, C. (2010c). ‘What the nose doesn’t know: Non-veridicality and olfactory

experience’, *Journal of Consciousness Studies*, 17, pp. 10–17.

Batty, C. (2011) ‘Smelling Lessons’, [*Philosophical Studies*](http://link.springer.com/journal/11098)*,* 153, pp. 161-174

Budek, T. & Farkas, K. (2014). ‘Which Causes of an Experience are also Objects of

the Experience?, in B. Brogaard (ed.) *Does Perception have Content?*

Oxford: Oxford University Press, pp. 351-70

Burge, T. (2010) *Origins of Objectivity*. Oxford: Clarendon Press.

Chalmers, D. (1996) *The Conscious Mind*. Oxford: Oxford University Press.

Farennikova, A. (2013) ‘Seeing Absence’, *Philosophical Studies*, 166, pp. 429–454

Frasnelli, J., Charbonneau, G., Collignon, O., & Lepore, F. (2009) ‘Odor localization

and sniffing’, *Chemical Senses,* 34(2), pp. 139–144.

Gottfried, J. A. (2005). ‘A truffle in the mouth is worth two in the bush: Odour

localization in the human brain’, *Neuron* 47(4), pp. 473–476.

Gottfried, J.A. (2010) ‘Central Mechanisms of Odour Object Perception’, *Nature*

(11), pp. 628-42.

Herz, R. S., & von Clef, J. (2001). ‘The influence of verbal labeling on the perception

of odors: Evidence for olfactory illusions?’ *Perception,* 30, pp. 381–391.

Kind, A. (2003). ‘What’s so Transparent about Transparency?’ *Philosophical Studies,* 115, pp. 225-44.

Kobal, G., Vantoller, S., & Hummel, T. (1989). ‘Is there directional smelling?’

*Experientia*, 45(2), pp. 130–132.

Lycan, W (1996). ‘Layered Perceptual Representation’, *Philosophical Issues*

7, pp. 81-100

Lycan, W. (2000). ‘The slighting of smell (with a brief note on the slighting of

chemistry)’, in N. Bhushan & S. Rosenfeld (eds.), *Of Minds and Molecules*. Oxford: Oxford University Press, pp. 273–289

Mainland, J., & Sobel, N. (2006). ‘The sniff is part of the olfactory percept’,

*Chemical Senses* 31(2): 181–196.

Margulis, E. (2007) ‘Moved by Nothing: listening to musical silence’. *Journal of*

*Music Theory* (51), pp. 245-276.

Martin, M.G. F. (2002). ‘The transparency of experience’, *Mind and Language,*

17(4), pp. 376–425.

Mizrahi, V. (2014) ‘Sniff, Smell, and Stuff’, *Philosophical Studies*, 171, pp. 233–250

Nudds, M. (2001) ‘Experiencing the Production of Sounds’, *European Journal of*

*Philosophy*, (9), pp. 210-29.

Nudds, M. (2012). ‘Review of ‘Origins of Objectivity’. *Analysis Reviews*, (72), pp.

157-74.

Radil, T., & Wysocki, C. J. (1998). ‘Spatiotemporal masking in pure olfaction’*.*

*Olfaction and Taste* XII(855), pp. 641–644.

Richardson, L. (2013) ‘Sniffing and Smelling’, *Philosophical Studies,* 162, pp. 401-

19.

Richardson, L. (2014) ‘Perceptual Activity and Bodily Awareness’ *Proceedings of the*

*Aristotelian Society* (CXV), pp. 4-21.

Roberts, T. (2015). ‘A Breath of Fresh Air: Absence and the Structure of Olfactory

Perception’, *Pacific Philosophical Quarterly* (pre-publication)

Rozin, P. (1982). ‘Taste-smell confusions and the duality of the olfactory sense.

*Perception & Psychophysics* 31(4), pp. 397–401.

Scruton (2007) ‘The Philosophy of Wine’, in B. Smith (ed.), *Questions of Taste*

Oxford: Oxford University Press, pp. 1-20.

Sibley, F. (2001) ‘Tastes, Smells, and Aesthetics’, in J. Benson, B. Redfern & J.

Roxbee-Cox (eds.) *Approach to Aesthetics: Collected Papers on*

*Philosophical Aesthetics*. Oxford: Clarendon Press.

Smith, B. (2012) ‘Complexities of Taste and Flavour’, *Nature* 486, S6.

doi:10.1038/486S6a

Soteriou, M. (2011) ‘The Perception of Absence, Space, and Time’, in J. Roessler, H.

Lerman, & N. Eilan (eds.) *Perception, Causation and Objectivity*. Oxford: Oxford University Press, pp. 180-206.

Stevenson, R & Wilson, D. (2007) ‘Odour Perception: an object-recognition

approach’. *Perception* (36), pp. 1821-33.

Todd, C. (2010) *The Philosophy of Wine: a case of truth, beauty, and intoxication.*

London: Routledge.

Von Bekesy, G. (1964). ‘Olfactory analogue to directional hearing.’ *Journal of*

*Applied Physiology* 19(3): 369–373.

Watzl, S. (2011). ‘Attention as Structuring of the Stream of Concsciousness’, in Mole

C., Smithies D. and Wu W. (eds.), A*ttention: Philosophical and Psychological*

*Essays*. Oxford: Oxford University Press, pp. 145-74.

1. Of course, this is controversial, and some philosophers think that there are different types of transparency and/or that it comes in weaker and stronger forms. See Kind (2003) and Soteriou (2011). I shall discuss this issue and the latter’s paper below. [↑](#endnote-ref-1)
2. Unless otherwise specified, throughout the paper I am thinking of odours as particulars rather than properties. When referred to as properties, I am considering them as properties of their material source objects. I use ‘smell’ and ‘odour’ interchangeably. [↑](#endnote-ref-2)
3. Of course, these are just initial observations that do not yet by themselves address the main worry that olfaction requires the aid of other capacities to represent material objects. [↑](#endnote-ref-3)
4. The functional claim will be elucidated below in my discussion of Burge, where it is supposed to capture what it is in the nature of olfaction to inform us about. [↑](#endnote-ref-4)
5. Philosophers making these claims about the representational capacities of olfaction rarely distinguish retronasal from orthonasal olfaction. These different types of olfaction, however, convey information to the brain in different ways and can give rise to quite different experiences. Indeed, as a referee pointed out to me, it is not uncontroversial to call retronasal olfaction a type of olfaction. Due to limitations of space, and to the fact that the empirical evidence is at this point thin enough to be regarded with some caution, I will mostly ignore this difference in the following discussion. But it should be kept in mind, for example, that the aromas detected in retronasal olfaction are closely connected to gustatory qualities in the mouth, and can as such be more difficult to distinguish in our experiences of flavour, understood as a multi-modal, and cross-modal holistic experience the myriad components of which are not always phenomenologically distinguishable. (e.g. Auvray & Spence 2008; Rozin 1982; Smith 2012) I return to this last point briefly later on. [↑](#endnote-ref-5)
6. This claim will be articulated in more detail below. [↑](#endnote-ref-6)
7. Thanks to the editors for pressing me to be clearer here. [↑](#endnote-ref-7)
8. Other potential examples include perfumes, as well as other complex beverages such as whisky. [↑](#endnote-ref-8)
9. Cf. Soteriou (2011) on the idea of a temporal sensory field. Although I also think both musical experience and richly structured olfactory experiences have a quasi-spatial analogue of the visual field, as I am about to discuss. See also Roberts (2015). [↑](#endnote-ref-9)
10. I return to these issues in the final section. [↑](#endnote-ref-10)
11. For some empirical discussion of related issues see Radil, T., & Wysocki, C. J. (1998). [↑](#endnote-ref-11)
12. Thanks to Clare MacCumhaill for suggesting this formulation. It is also worth remembering, in this light, that spatial metaphors and quasi-spatial experiences are also employed in musical experience – notes are heard as high or low in pitch, and tones are described as, for example, warm or full. [↑](#endnote-ref-12)
13. More accurately, if we are concerned only with olfaction (and not, for example, touch or taste), we are representing the olfactory structure of wine or the wine-as-olfactory structure. I shall argue below, however, that there is good reason to avoid making strict distinctions between the senses in describing olfactory experiences. [↑](#endnote-ref-13)
14. Although, as recent research reveals, even here olfaction performs better than philosophers have assumed. See e.g. Kobal et al. (1989); Von Bekesy (1964); Gottfried (2010); Frasnelli et al. (2009); Stevenson & Wilson (2007). [↑](#endnote-ref-14)
15. See Richardson (2014) for relevant discussion. [↑](#endnote-ref-15)
16. See Budek and Farkas (2014) for further discussion of this type of objection [↑](#endnote-ref-16)
17. See Auvray & Spence (2008) for a good overview. [↑](#endnote-ref-17)
18. One might wonder here what we should say about the non-epistemic olfactory experiences of mere odours, and whether my account somehow makes all olfactory perception epistemic. This might seem to follow from the point just made that we smell source objects when, in my examples, odours are smelled as wine odours and represented as parts of the olfactory wine object. But of course I wouldn’t want to deny that we can attend to and represent mere odours, as it were, non-epistemically, and that in doing so in certain cases we may not thereby represent their source objects. I have certainly not argued that all olfactory experiences represent source objects, but have simply tried to show that our ability to represent odours does not preclude the capacity of olfaction itself to represent source objects via the representation of the odours emitted by them, and hence that olfaction can represent multiple, layered objects. [↑](#endnote-ref-18)
19. By ‘field’ I do not mean to be committed to the idea that there is some background framework always in place against which olfactory experiences are, so to speak, presented. I simply mean that the odours are presented as standing in temporal and quasi-spatial relationships to each other. [↑](#endnote-ref-19)
20. By ‘source objects’ I mean, in light of my earlier remarks, to distinguish the wine-as-experienced from the material object in the bottle that is the sum of olfactory dispositional properties, both of which, however, can be counted as source objects. [↑](#endnote-ref-20)
21. I do not think that the experience itself has intrinsic features that identify it as ephemeral (i.e. identified as such in virtue of its ephemerality). Rather, I mean that we attend to and appreciate the fact that it is ephemeral. [↑](#endnote-ref-21)
22. Other olfactory experiences of ephemerality, however, may depend simply on the cognitive and phenomenological awareness of the essentially temporal and relatively fleeting nature of odorous objects. [↑](#endnote-ref-22)
23. Although for Soteriou, it should be pointed out, these temporal experiences do not involve expectation or memory, since we necessarily experience things from the perspective of a temporal interval that frames ‘the now’. [↑](#endnote-ref-23)
24. Tom Roberts (2015) has recently argued that we can have olfactory experiences of absence and I take my account to be compatible with his, although where I have emphasised the role of the complex, structured olfactory object in such experiences, Roberts focuses on how absence perception is built into the very structure of olfactory experience. [↑](#endnote-ref-24)
25. I would like to thank the editors and an anonymous referee for their extremely detailed feedback on earlier versions of this paper and for pressing me to be much clearer about many of my key claims. The paper has been improved immeasurably as a result of their diligence and insights. I would also like to thank audiences in Barcelona and Paris, where earlier versions of this paper were presented, and particularly Barry Smith for many illuminating conversations. [↑](#endnote-ref-25)