

Vincent van Gogh's yellow vision

Art and sight are closely intertwined. Painting is a visual medium that requires both the artist and the observer to use their visual sense to fully appreciate the execution and development of a composition.

Various theoretical arguments have been advanced, attesting to the extent that visual problems allegedly have influenced a particular artist's work product.

In this first instalment of a mini-series looking into the subject of *Vision and Art* I would like to talk about the 'yellow vision' of Vincent van Gogh.

'Xanthopsia', that is, an overriding yellow bias in vision, can be provoked by many disorders other than the reddish-brown filter of nuclear sclerosis, which most famously affected Monet.

Poisoning by a large number of drugs, including santonin, digitalis, phenacetin, ether, chromic and picric acids, and even snake venom have been associated with xanthopsia.¹⁻³

In Roman times, 'seeing yellow' was described by Lucretius, Varro, and Cassius as a stigma of the mentally unsound, whereas to Galen it was due to 'hyposphagma' (that is, blood in the aqueous humour).¹ Subsequently, the yellow staining of the conjunctiva in jaundice suggested that bile was the underlying cause for xanthopsia, a view that was held (despite the cornea remaining uncoloured) by speculators even as late as Goethe (1749–1832).¹

The paintings of the Dutch post-impressionist Vincent van Gogh (1854–1890) are famous for their vivid colours, particularly the striking use of yellow, most evident in his later works such as *Van Gogh, Still Life: Vase with Fifteen Sunflowers*, 1888 and *The Reaper*, 1889.

Van Gogh's existence was full of tragedy and ultimately self-destructive, ending with suicide at the young age of 37 years. Over 150 physicians have ventured a perplexing variety of diagnoses, ranging from bipolar disorder, schizophrenia, neurosyphilis, interictal dysphoric disorder, sunstroke, acute intermittent porphyria, temporal lobe epilepsy precipitated by the use of absinthe in the presence of an early limbic lesion, to Ménière's disease.⁴⁻⁷

Whatever van Gogh's exact diagnosis may have been, it is highly likely that after admission to the asylum at Saint-Rémy in 1889, his physician, Dr Paul-Ferdinand Gachet, prescribed digitalis, which is why

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medical historiography strongly supports the hypothesis of van Gogh having suffered from digitalis-induced xanthopsia. In *Portrait of Dr Gachet*, 1890, the foxglove plant is presented in front of Dr Gachet; digitalis is extracted from foxglove plants.^{2,3}

The use of digitalis at the time was undoubtedly widespread. Indeed, Samuel Hahnemann, the father of homeopathy, listed 73 indications for treatment with digitalis, including 'melancholic thoughts, hypochondria, mental illness, headache, nausea, vomiting, pain in the eyes, swelling of the eyelids, tearing, and inflammation of the eyes'.⁸

Regardless, the question remains as to whether van Gogh's canvases do indeed support a diagnosis of xanthopsia, or whether the preponderance of yellow can be understood merely as an intentional stylistic factor of certain works. In fact, there are several facts to support the latter contention.

First, it is unlikely that Dr Gachet indeed overdosed van Gogh with digitalis. Well aware of the potential lethal side effects of the drug, he used homeopathic doses and wrote in an unpublished treatise:

*"We understand the physiologic effects of this plant well enough today to be afraid of its dangers, and strongly advise against its use, since it can produce syncope by slowing the heartbeat and it can cause paralysis of that organ."*⁸

Moreover, it is doubtful that van Gogh would have outlasted extended periods of digitalis levels high enough to induce xanthopsia. As with absinthe, by the time

he had reached toxic levels, he would have been unable to paint.

Second, van Gogh's paintings prior to 1889 already showed a preference for yellow. Therefore, his 'yellow vision' was evident in various paintings, such as his iconic *'Sunflowers'* and many others, cannot be attributed to his alleged treatment with digitalis at Saint-Rémy. In addition, Paul Gauguin (1848–1903), who had worked with van Gogh prior to any major mental breakdowns or hospitalisations, commented on the effect of yellow in one of van Gogh's sunflower paintings:

*"Oh yes, he loved yellow, this good Vincent, this painter from Holland — those glimmers of sunlight rekindled his soul, that abhorred the fog, that needed the warmth."*⁸

Further, despite the dominance of yellow hues in van Gogh's works, one has to recognise that the yellow is always balanced by the use of blue and/or white, even if applied very subtly (for example, in the white walls of the distant houses in *The Reaper*, 1889). With xanthopsia, whites and yellows would have been indistinguishable to the painter and blues would have appeared to him as greens.

Third, van Gogh adored the intensity and contrasting effect of colours in general, and was strongly influenced by Japanese prints, from which he took influence to utilise large, flat areas of monochromatic colours and strong (often black) contours. His correspondence totalled more than 2000 letters that open up windows onto the meaning of his works and indeed his soul. His letters explain how the colours

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Yale University Art Gallery, New Haven, Connecticut 06520. 1961.18.34. Artist Vincent van Gogh. *Le café de nuit (The Night Café)*. 1888. Oil on canvas. 72.4 x 92.1 cm (28 1/2 x 36 1/4 in.).

in his mature works no longer needed to be realistic. The actual motif was not of primary importance anymore (as it had been in his early work). Instead, he aimed to convey the sensibility or vehemence or uneasiness emanating from the colour combinations themselves. For instance, *'The Night Café'* (1888), characterised by its yellow tonality, depicts the nondescript interior of a half-empty café. However, its colours bear a deeper meaning, as the artist describes in one of his letters:

*'In my painting of The Night Café I've tried to express the idea that the café is a place where you can ruin yourself, go mad, commit crimes. Anyway, I tried with contrasts of delicate pink and blood-red and wine-red. Soft Louis XV and Veronese green contrasting with yellow greens and hard blue greens. All of that in an ambience of a hellish furnace, in pale sulphur. To express something of the power of the dark corners of a grog-shop. And yet with the appearance of Japanese gaiety and Tartarin's good nature.'*⁹

Fourth, Dr Gachet tested van Gogh's vision in 1889. Not only was van Gogh found to have excellent unaided vision both at short range and at distance; his colour vision (as tested with colour-vision materials used for the railroad personnel at the time) again appeared to be perfectly normal.⁸

Interestingly, some art historians and doctors have also suggested that subacute angle closure glaucoma may have accounted for van Gogh's 'halos' as are evident in various paintings such as the *'The Night Café'* or *'The Starry Night'*.⁸

Again, this hypothesis is highly unlikely. There is no hint in van Gogh's detailed correspondence that ever mentioned the symptoms associated with subacute angle closure; such as brow ache, blurred vision, or indeed seeing halos. In addition, van Gogh was an unlikely candidate for angle closure, being young, white, and certainly not hypermetropic.

Last, the most bizarre hypothesis brought forward is that:

'Van Gogh's use of yellow is considered to derive from the sun, and appears to be related to an ambivalence to his father, as expressed in sun worship, while the complementary colours red and green were correlated with his bisexuality and castration anxiety.'^{1,10}

Van Gogh's partiality for yellow has indeed been the subject of much speculation. However, after close inspection and consideration it becomes clear that van Gogh's colour scheme was always deliberate and not linked to any visual impairment.

The study of his paintings should remind

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the audience to not merely reflect on what they see, but also to consider what the artist saw during the creative process. As van Gogh's contemporary Edgar Degas poignantly put it:

*'Art is not what you see, but what you make others see.'*¹¹

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