



# The Neuroaesthetics of Art and Happiness

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## What is Neuroaesthetics?

**Neuroaesthetics** is the scientific study of how the brain is affected by creating and viewing art.

**Creating art** increases the “feel good” neurotransmitter dopamine and contributes to well-being and happiness. Belkofer<sup>1</sup>, by mapping brain frequency effects after drawing, found that such brain functions as self-regulation, relaxation, memory and spatial-temporal and visual processing are activated when people make art.

According to a study performed by Prof. Zeki<sup>2</sup>, when people **viewed art** that they considered beautiful, there was increased blood flow in the orbito-frontal cortex, a pleasure and reward center in the brain, as measured by fMRI brain images. This was accompanied by a surge of dopamine, resulting in feelings of intense pleasure.

## What Art Elements are Associated with Happiness?

Most artists agree that we associate **lines** that are curved or rounded with happiness. Curved **shapes** offer rhythm, happiness and pleasure. Recently neuroscientists have shown<sup>3</sup> that this affection for curves isn't just a matter of personal taste; it's hard-wired into the brain. Roundness seems to be a universal human pleasure.

A brain imaging study conducted several years ago by Moshe Bar<sup>4</sup> of Harvard Medical School found that viewing objects with sharp angle-contours, such as square watches and the like – activated the amygdala, the part of the brain that processes fear. We prefer curves because they signal lack of threat, i.e. safety.

**Light values** often suggest happiness, light, joy, and airiness. Pure or primary **colors** evoke heightened energy and elevated mood.

## Applications in my Artwork

In my recent series of paintings, “The Science of Happiness”, I have experimented with upward curved bands and varied dots of pure hues in a minimal abstract composition. Painting these artworks stimulated in me feelings of renewed energy and enthusiasm.

The field of positive psychology has emphasized that positive emotions tend to be associated with growth and flourishing. Joy expands the mind and promotes healing in the body. My hope is that viewers will also be inspired by my artwork to thoughts of authentic happiness. Our thoughts create our reality!

### Sources

1. Belkofer, C. et al, “Effects of Drawing on Alpha Activity: A Quantitative EEG Study With Implications for Art Therapy”, Art Therapy 31(2), 2014, 61 – 68.
2. Ishizu, T. and Zeki, S., “Toward a Brain-Based Theory of Beauty”, PLoS One, 6(7), July, 2011, e21852.
3. <https://www.fastcodesign.com/3020075/why-our-brains-love-curve-architecture>
4. Bar, M. and Neta, M., “Visual Elements of Subjective Preference Modulate Amygdala Activation”, Neuropsychologia 45(10), June 2007, 2191–2200.



Cerulean Blue, 24” x 24” Acrylic



Yellow, 20” x 20” Acrylic



Orange, 20” x 20” Acrylic



Green, 24” x 24” Acrylic



Dots, 36” x 36” Acrylic