

## THE SECRET LIFE OF YOUR BRAIN AROUND PLANTS

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**Annotation.** This article explores the profound and often overlooked relationship between plants and the human brain, drawing on insights from neuroscience, psychology, and therapeutic practice. Beginning with humanity's evolutionary roots in nature, it examines the concept of biophilia and how modern urban living has disrupted this connection. The discussion then turns to the contemporary revival of houseplants, highlighting evidence that even brief exposure to greenery enhances happiness, productivity, and emotional well-being. The psychology of green is presented as a central factor, with studies showing its calming influence, restorative effects, and ability to improve cognitive performance in both daily life and workplace settings. Finally, the article emphasizes gardening as a form of horticultural therapy, underscoring its capacity to reduce stress, strengthen social ties, and promote mindfulness.

Together, these findings reveal that plants are far more than ornamental, they are vital companions that nurture human health, creativity, and resilience in an increasingly urbanized and digital world.

**Keywords:** biophilia; neuroscience; plant-human interaction; houseplants; productivity; color psychology; green exercise; forest bathing; horticultural therapy; mindfulness; well-being; mental health; cognitive performance; urbanization; nature connection.

### Our Ancient Connection to Nature

Within three minutes of entering a rich green environment, your brain chemistry starts to change: stress hormones decrease, blood pressure falls, and your body hums with silent restoration, all without your conscious knowledge. This isn't coincidence - it is the ancient interaction between plants and the brain, only recently revealed by neuroscience.

It is interesting to note that the earliest humans emerged in the savannahs of East Africa, where grasses and trees offered both food and shelter. Natural resources were essential for survival, shaping our evolutionary reliance on landscapes that balanced openness and greenery.

The *biophilia* concept, coined by philosopher Erich Fromm and popularized by biologist Edward O. Wilson, describes this innate human desire to connect with living things.

Even though urbanization has only been around for about 300 years, more than half the world now lives in cities. Mental health conditions like anxiety and depression are rising, partly due to disconnection from nature. While urban living brings prosperity and convenience, distance from greenery may exacerbate these issues. That is why using natural elements like light, color, water, and plants has become a powerful way to restore human well-being.

### The Plant Renaissance and Everyday Benefits

During the pandemic houseplant collecting surged among younger people with limited outdoor space. "Plants make people happy" became the unofficial motto of pandemic times.

Research supports the claim that spending even 5-10 minutes in a room with plants increases happiness. Longer exposure reduces negative emotions, particularly with green and purple plants, and is associated with higher life satisfaction and self-esteem.

Plants also boost productivity. Studies show college students worked 12% faster in windowless labs with plants, while call center workers with plant views made up to 7% more calls.

Desk plants alone have been linked to a 15% rise in workplace performance. Beyond work, plants contribute to relaxation, mindfulness, and even better sleep when fragrant species like lavender and jasmine are present.

### **The Psychology of Green and Cognitive Effects**

Color psychology demonstrates how plants influence mood. Warm, long-wavelength colors like red arouse energy, while cooler, shorter wavelengths like green calm the nervous system. Green is soothing because our eyes perceive it effortlessly, making us feel at ease in unfamiliar settings. Designers often use green in public spaces such as hotels and restaurants because it symbolizes vitality and balance.

The “green exercise effect” highlights this further. In one study, participants who exercised indoors while viewing outdoor landscapes tinted green felt less exertion and fewer mood disturbances compared to those watching the same footage tinted red or gray. Similarly, the Japanese practice of “forest bathing” shows measurable reductions in blood pressure from spending time among greenery.

When it comes to workspaces, plants enhance offices not only psychologically but physically: they reduce noise by absorbing sound, raise humidity through transpiration, and filter toxins while releasing oxygen. These subtle changes improve focus, comfort, and mental clarity, making the difference between sterile, plant-free offices and vibrant, human-centered environments.

### **Gardening as Therapy and Lasting Connection**

Gardening is known as a horticultural therapy as plant-based activities reduce stress, improve mood, and provide purpose. A University of Colorado-Boulder study found gardeners reported stronger social ties, lower stress, more physical activity, and healthier diets than non-gardeners. Another U.K. study revealed that gardening improves well-being regardless of socioeconomic differences.

Gardening is also inherently mindful: it engages the senses, builds patience, and connects people with natural rhythms. Soil microbes like *mycobacterium vaccae* are even linked to mood enhancement, offering “microbial therapy” alongside sunlight-driven serotonin boosts.

Accessible to all ages and spaces, gardening remains one of the simplest, most profound ways to restore health, creativity, and connection in our fast-paced, digital world. Plants are not just decoration - they are living companions, quiet healers, and reminders of our deep-rooted bond with nature.

### **Conclusion**

The history of plants and the human brain is one of continuity rather than originality, spanning from our first days of survival on the African savannahs to the current renaissance of gardening and houseplants. What evolution and intuition have indicated is that greenery helps rebalance, improves concentration, and nourishes the body and mind, all supported by neuroscience. Plants continue to remind us of our deep biological roots, whether it is via the attentive rhythms of gardening, the calming psychology of green, or the silent productivity boost of a desk plant. Reconnecting with nature is more than just aesthetics at a time of rapidly increasing urbanization and technology saturation.

We are reestablishing a crucial conversation between the environment and the brain that has influenced mankind for thousands of years by bringing plants into our homes, businesses, and communities.

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