



# Fragrance in Floral Design: The Emotional Role of Natural Scent in Human Perception

Aleksandra Filatova<sup>1</sup>, Svetlana Kolosova<sup>2</sup>

<sup>1</sup>Diztip Design LLC, Dania Beach, FL.

<sup>2</sup>Head of Psychological and Information Support Counseling in the Employee Assistance, Program (EAP) at Inbalansy, Moscow, Russia.

## Abstract

*Scent is a subtle but influential dimension of floral design that goes beyond visual aesthetics and encompasses the realm of emotional and psychological experience. While traditional approaches to floristry emphasize the visual component of composition (color and form), it is natural scent that plays a crucial role in shaping perception, activating memory, and modulating emotional states.*

*This article explores the role of floral scent as a multisensory element that influences human perception through neuropsychological and associative mechanisms. The paper combines the results of modern research in the field of olfactory science, environmental psychology, and sensory practices. The conclusions of the paper also include the results of expert knowledge gained by the author in professional floristry practice.*

*The results of the study show that natural floral scent enhances emotional sensitivity, enhances symbolic meaning, and contributes to a deeper sense of authenticity and presence. These results suggest that scent should be considered an integral component of floral design, rather than a secondary characteristic.*

**Keywords:** Emotional Response, Floral Design, Floristry, Multisensory Experience, Olfactory Perception.

## INTRODUCTION

Floral design has long been understood as a primarily visual discipline, based on the principles of composition, proportion, and color harmony. However, human perception is inherently multisensory, and the experience of interacting with flowers goes beyond the visual factor alone. Among the sensory dimensions involved in interacting with flowers, olfaction occupies a unique place due to its direct connection to emotional and memory processes.

Unlike visual or auditory stimuli, olfactory signals are processed through neural pathways closely connected to the limbic system, particularly to areas associated with emotion and memory. This anatomical specificity explains why scent can evoke immediate emotional responses and vivid memories of past experiences (Herz&Engen, 1996; Lehrner et al, 2005). As a result, scent has the ability to influence perception at both the conscious and subconscious levels.

In parallel, research in the field of ecological psychology and human interaction with nature has shown that exposure to

natural elements contributes to emotional regulation, stress reduction and general psychological well-being (Kiecolt-Glaser et al, 2008; Chu&Dowsen, 2000). Although these findings are widely applied in fields such as horticultural therapy and ecological design, their significance for floristry, especially in relation to aroma, remains understudied.

The aim of this study is to examine the role of natural floral aroma as an active component of floral design. The author seeks to understand how aroma influences emotional response, memory activation and perception of meaning, and to position aroma as an important element in modern multisensory design practices.

## MATERIALS AND METHODS

This study is based on a descriptive research method that includes and integrates information from scientific publications with the author's practical methods of professional activity in floristry. The methodological approach combines a review of peer-reviewed literature in the fields of psychology, neuroscience and environmental research with

**Citation:** Aleksandra Filatova<sup>1</sup>, Svetlana Kolosova, "Fragrance in Floral Design: The Emotional Role of Natural Scent in Human Perception", Universal Library of Medical and Health Sciences, 2026; 4(2): 17-20. DOI: <https://doi.org/10.70315/uloap.ulmhs.2026.0402003>.

practical conclusions obtained from real-life interactions with clients in emotionally meaningful contexts.

Primary data sources include published studies of olfactory perception, emotional processing and human interaction with natural elements, as well as documented practical cases related to the aromatic component of individual floral arrangements. Particular attention was paid to the results of research on the relationship between smell, memory and emotional regulation.

Analytical procedures were carried out using thematic analysis, which allowed us to identify recurring patterns in emotional reactions to the natural aroma of flowers or certain plants. Observational data from the author's practice in floristry were interpreted through the prism of established theoretical foundations, including multisensory perception, associative memory, and biophilia. Such an integrative approach allowed for a comprehensive understanding of aroma not only as a sensory stimulus, but also as a significant component of human emotional experience.

### RESULTS

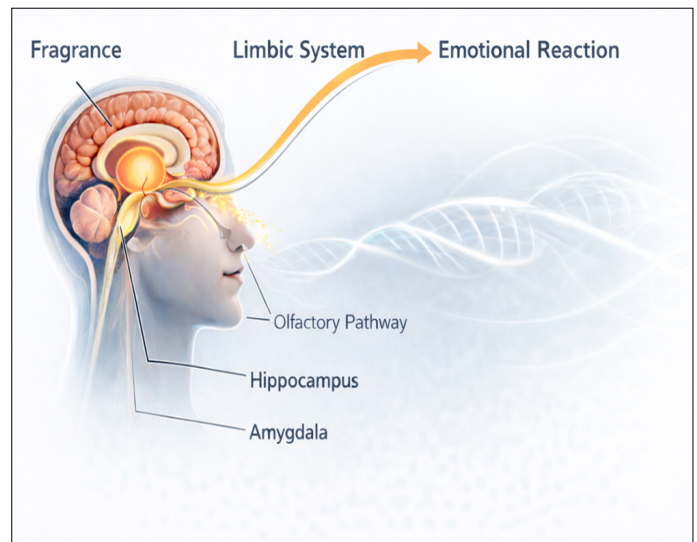
#### Fragrance as a Trigger of Emotional Response

Analysis shows that natural floral fragrance functions as an immediate and effective trigger for emotional response. Due to direct neurological pathways connecting olfactory perception to the limbic system, fragrance is able to evoke rapid emotional responses without the need for conscious interpretation (Herz&Engen, 1996). This distinguishes olfactory stimuli from visual or auditory cues, which typically require more complex cognitive processing.

The author's observations from his practice as a florist show that people exposed to fragrant floral arrangements often experience a noticeable change in emotional state within a short period of time. This change is usually described as a transition from internal tension, emotional fatigue, or psychological overload to a state of calm, tenderness, or emotional relief. Such responses are consistent with experimental data demonstrating that certain natural fragrances can reduce anxiety and positively affect mood (Lehrner et al., 2005; Kiecolt-Glaser et al., 2008).

Furthermore, evidence suggests that different floral scents can elicit different emotional effects. Soft, delicate, and powdery scents are often associated with feelings of comfort, security, and emotional warmth. In contrast, more intense and rich floral notes can evoke feelings of stimulation, alertness, or emotional upliftment. This variability suggests that scent can be intentionally incorporated into floral design as a subtle yet effective tool for influencing emotional states.

Overall, it can be assumed that scent awakens rapid-response mechanisms in emotional regulation, enhancing the psychological impact of floral arrangements and contributing to the depth of the received impression.



**Figure 1.** The mechanism of the emergence of an emotional trigger from a scent

#### Olfactory Memory and Associative Perception

The central finding of this study is the close relationship between floral scent and autobiographical memory. Exposure to natural floral scents often evokes spontaneous memories of past experiences, many of which are emotionally meaningful and deeply personal.

Recipients of floral scents often associate certain scents with memories of specific people, places, or life events or periods. These memories are typically described as vivid, captivating, and emotionally intense. Scientific studies have demonstrated a higher emotional richness and detail of memorable moments that arise when olfactory receptors are activated compared to other sensory modalities (Chu&Downes, 2000).

This phenomenon can be explained by the close anatomical and functional connection between olfactory processing areas and brain structures associated with memory. As a result, odor not only facilitates the recall of past experiences, but also reactivates the emotional states associated with them. In the context of floral design, this allows for greater meaning to the compositions and creates a therapeutic effect that is independent of the visual component. It is important that these associative reactions are highly individualized. The same aroma can evoke completely different memories and emotional reactions depending on the person's background and life experience. This emphasizes the high potential of floristry as one of the therapeutic methods of working with patients.

#### Multisensory Enhancement of Perception

The results show that floral arrangements are inherently multisensory objects, with scent playing a crucial role in enhancing the overall perceptual and emotional experience. When visual and olfactory elements are aligned, they create a more holistic sensory experience.

Floral arrangements that combine aesthetic visual structure

with natural and harmonious scent are perceived as more authentic, complete, and emotionally expressive. In contrast, arrangements that rely solely on visual appeal may be perceived as less dynamic or lacking depth. This suggests that scent contributes to perceptual diversity and enhances the overall impact of the arrangement.

From a psychological perspective, multisensory integration enhances both cognitive processing and emotional evaluation. The presence of scent enhances visual cues, facilitates memory encoding, and increases the likelihood that the experience will be stored and reproduced over time. These findings are supported by studies demonstrating that olfactory stimuli can significantly influence visual perception and overall evaluation of an object (Ulrich, 1984).

### Natural Vs Synthetic Scent

A clear distinction has been made between natural floral scents and synthetic ones. In practical observations, compositions with true botanical scents are often described as more “alive,” “fresh,” or emotionally resonant. This response can be explained by the innate human tendency to respond positively to natural stimuli, as suggested by theories of biophilia and ecological psychology (Kiecolt-Glaser et al, 2008).

In contrast, synthetic scents, especially when perceived as artificial or overly intense, can disrupt the sensory experience. Some people report feelings of discomfort, sensory overload, or a reduced sense of authenticity when exposed to artificial scents. These findings are consistent with research indicating that synthetic scents can negatively impact perception and emotional response in certain contexts (Herz, 2009). The distinction between natural and synthetic scents highlights the importance of authenticity in sensory design. Practical experience shows the greater effectiveness of natural flower arrangements, as opposed to artificial ones.

### Fragrance as Nonverbal Communication

The study also demonstrates that fragrance functions as a subtle yet meaningful component of nonverbal communication within floral design. Rather than acting as an isolated sensory feature, scent contributes to the interpretation of the emotional message conveyed by an arrangement. Recipients frequently perceive fragrance as an extension of intention, interpreting it as a signal of care, presence, emotional closeness, or attention. For example, soft and delicate scents tend to reinforce messages of tenderness, empathy, and support, while richer and more expressive fragrances may be associated with celebration, passion, or heightened emotional states. Importantly, fragrance operates in conjunction with visual symbolism, creating a unified and multidimensional communicative effect. It deepens the emotional narrative embedded in the arrangement and enhances its expressive capacity. These observations are consistent with broader research demonstrating that interaction with natural elements supports emotional connection and social well-being (Ulrich, 1984).

Additionally, fragrance contributes to the temporal persistence of the emotional message. While visual characteristics of flowers gradually change over time, scent may continue to evoke emotional responses and associative meanings, prolonging the psychological presence of the gesture. This suggests that fragrance plays a critical role not only in immediate perception but also in sustaining the emotional significance of floral compositions over time.

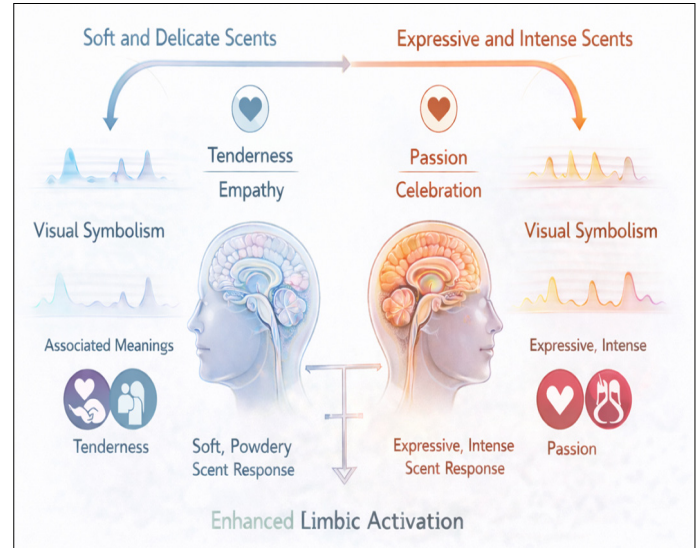


Figure 2. Nonverbal perception of floral scent

### DISCUSSION

The results of this study confirm that scent is an important but underappreciated component of floral design, influencing emotional perception through interconnected sensory and psychological mechanisms.

Existing research supports the role of olfactory stimuli in emotional regulation, memory activation, and multisensory integration (Lehrner et al., 2005; Ulrich, 1984; Herz, 2009). Despite this, scent is often considered a secondary characteristic in floral practice, rather than a significant design element.

The observed effects can be explained by several complementary functions, including direct neurological processing of olfactory stimuli, associative memory mechanisms, multisensory perception, and the human tendency to respond positively to the natural environment. Together, these mechanisms explain the strong emotional and perceptual responses elicited by natural floral scent.

At the same time, the results highlight the gap between scientific understanding and applied practice. While the psychological impact of scent is well documented, its integration into floral design remains only partially explored. Bridging this gap could open up new possibilities for more emotionally effective and experiential floral arrangements.

### CONCLUSIONS

Fragrance plays a fundamental role in shaping emotional and perceptual experiences. Natural floral fragrance enhances emotional engagement by activating neuropsychological

pathways associated with memory and emotion, allowing immediate and often subconscious responses to be elicited. It also facilitates multisensory perception by enhancing visual elements, increasing the depth and integrity of the overall experience. Due to these factors, natural floral arrangements evoke greater emotional resonance than artificial substitutes.

These findings expand the understanding of floristry as a multisensory practice in which olfactory elements play a central role. The deliberate integration of fragrance into floral design not only expands its artistic possibilities, but also enhances its ability to function as a subtle but significant tool for emotional communication, psychological support and therapy.

### Acknowledgements

The author expresses sincere gratitude to colleagues in the fields of floristry and psychology for their valuable insights and professional discussions that contributed to the development of this work.

### REFERENCES

1. Herz, R. S., & Engen, T. (1996). Odor memory: Review and analysis. *Psychonomic Bulletin & Review*, 3(3), 300–313. <https://doi.org/10.3758/BF03206812>
2. Lehrner, J., Eckersberger, C., Walla, P., Pötsch, G., & Deecke, L. (2005). Ambient odors of orange and lavender reduce anxiety and improve mood. *Physiology & Behavior*, 86(1–2), 92–95. <https://doi.org/10.1016/j.physbeh.2005.01.007>
3. Kiecolt-Glaser, J. K., Graham, J. E., Malarkey, W. B., Porter, K., Lemeshow, S., & Glaser, R. (2008). Olfactory influences on mood and immune function. *Psychophysiology*, 45(4), 561–567. <https://doi.org/10.1111/j.1469-8986.2008.00674.x>
4. Chu, S., & Downes, J. J. (2000). Odour-evoked autobiographical memories: Psychological investigations. *Cognition*, 75(2), B41–B50. <https://doi.org/10.1006/cogp.1999.0732>
5. Ulrich, R. S. (1984). View through a window may influence recovery from surgery. *Science*, 224(4647), 420–421.
6. Kaplan, R., & Kaplan, S. (1989). *The experience of nature: A psychological perspective*. Cambridge University Press.
7. Herz, R. S. (2009). Aromatherapy facts and fictions: A scientific analysis of olfactory effects on mood, physiology and behavior. *International Journal of Neuroscience*, 119(2), 263–290. <https://doi.org/10.1080/00207450802333900>
8. Spence, C. (2020). Multisensory perception and design. *Cortex*, 126, 224–238. <https://doi.org/10.1016/j.cortex.2020.02.010>