



# Awakening the senses: Deep emotions, non-verbal reactions and fragrances - A new methodology

Reus, **Thamile Luciane**<sup>1</sup>; Salles, Bruna Hovadick<sup>1</sup>; Veiga, Cesar Antonio<sup>1</sup>; Cavassilas, Marina<sup>2</sup>; Mungioli, Lara<sup>3</sup>; Penven, Maëlle<sup>4</sup>; Palhares, Camila<sup>3</sup>; Ronconi, Andreia Cristina Rodrigues<sup>1</sup>; Firmino, Ana Raquel Inacio<sup>1</sup>; Brohem, Carla Abdo<sup>1</sup>; Andrade, Bruna Polonio<sup>1</sup>; Chiumento, Giovanna<sup>1</sup>; Lorencini, Marcio<sup>1</sup>; Muller, Rafael<sup>1</sup>.

<sup>1</sup> Research and Development, Grupo Boticário, Paraná, Brazil; <sup>2</sup> Semiopolis, Paris, France; <sup>3</sup> Givaudan, São Paulo, Brazil; <sup>4</sup> Givaudan, Paris, France;

## Introduction:

Evidence have shown that odors can overtly or subliminally modulate mood and emotion. Therefore, fragrances have the power to influence our mood and also to awake our senses [1]. Along with the understanding of human behavior and the human brain, the perfumery market has aimed at designing fragrances that trigger emotions.

It is known that some emotions are difficult to be expressed by consumers, as sometimes they are not even conscious about them. This paper presents the result of an innovative approach used for the first time in fragrances in Latin America and achieved through a partnership between O Boticário and Givaudan. To attain this innovative product, an exclusive approach was used to evaluate fragrances based on a unique non-verbal methodology: Emotion Decoding System®, co-designed by Givaudan and Semiopolis. By using this new methodology, we were able to develop a fragrance that invokes the emotion of sexual arousal.

## Materials & Methods:

The Emotion Decoding System® is a methodology created by Marina Cavassilas, founder of Semiopolis, to decode consumers body language in response to a stimuli. Taking Paul Eckman's work on the universality of emotions [2,3,4,5] as a starting point, she developed over the past 10 years her own grid of observation which allows her to decode over 200 non-verbal reactions (facial, postures, gestures) without the barriers of the conscious (verbalization) and connect them to a broad spectrum of emotions.

In this present work, a monadic sequential test was performed. In order for that, 20 women from 20-35 years old consumers smelled 10 chords. Each person was interviewed individually for one hour and the interview was filmed. During the in-depth interview, they had the opportunity to talk about the sensations, emotions and perceptions they had about each smell. The exercise became unique when on top of this declarative phase, the primal emotions consumers felt were decoded from these films. In this study, 8 different emotions were captured.

## Results & Discussion:

After a deep analysis of the participants' non-verbal reactions, the results showed which emotions were related to each of the 10 chords (Table 1). The results demonstrated how each chord was related to each of the emotions in terms of the frequency they were observed (major, minor or none). The major reactions were considered truly significant.

The chords evoked different emotions in different levels, like "sexual excitement", "addictiveness", and "mouth pleasure" and the one more related to sexual arousal (Chord 6) was used in the design of the fragrance created by Givaudan to O Boticário.

CHORD/REACTIONS	CHORD 1	CHORD 2	CHORD 3	CHORD 4	CHORD 5	CHORD 6	CHORD 7	CHORD 8	CHORD 9	CHORD 10
Addictive/Olfactive moreish	Minor	Major	Major	Minor	Major	Major	Minor	Minor	Minor	Minor
Pleasure In mouth	Major	Major	Major	Major	Major	Major	Minor	Minor	Minor	Minor
Sexual excitement	Minor	Minor	None	None	None	Major	None	Minor	None	Minor

Table 1: Chords and reactions results. Chord 6 was the one found more related to sexual arousal. Major results were considered truly significant.

The methodology used to evaluate the chords (Emotion Decoding System®) is a decoding method that goes beyond the 7 basic emotions (Anger, Contempt, Disgust, Enjoyment, Fear, Sadness and Surprise). In this study, the Emotion Decoding System® was fundamental for choosing the best chord in order to construct a fragrance that is linked to sexual arousal. This finding was fundamental for designing a product that meets its concept along with the consumer's expectations and emotions. Also, by running this test we were able to consolidate a methodology that can be further applied for other products and also other markets that aim to design products in the field of emotions and sensations.

## Conclusions:

The Emotion Decoding System® is an innovative and non-invasive methodology. By using it, Grupo Boticário and Givaudan were able to find the best chord to construct a fragrance related to sexual arousal.

## Acknowledgments:

This work was conducted by Grupo Boticário in a partnership with Givaudan. Special thanks to all who took part of this work.

## References:

- Kontaris I, East B S, Wilson D A (2020) Behavioral and Neurobiological Convergence of Odor, Mood and Emotion: A Review. Front Behav Neurosci 14:35.
- Ekman P (1972) Universals and Cultural Differences in Facial Expression of Emotions. Nebraska Symposium on Motivation 207-282.
- Ekman P, Friesen W V (1971) Constants Across Cultures in the Face and Emotion. J Pers Soc Psychol 17(2) 124-129.
- Ekman P, Friesen W V, Tomkins S S (1971) Facial Affect Scoring Technique: A First Validity Study. Semiotica 3 37-58.
- Ekman P (1970) Universal Facial Expressions of Emotions. California Mental Health Research Digest, 8(4) 151-158.