

Long Lasting Fragrances with High Emotional Impact: a Possible Match ?

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 **TOURNET**
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 Barcelona
Perfumery
Congress



Sensenet's mission

"Sensenet helps you to EVALUATE AND IMPROVE THE OLFACTORY PERFORMANCE OF YOUR PRODUCTS AND MATERIALS, through tailor-made studies and consultancy services".



Criteria for choosing a fragrance

Liking



Liking data (also called hedonic data) are among the most collected in sensory analysis. They simply consist in asking the different subjects to give a score to the products,

Performance



Performance' refers to both longevity (the duration of the smell) and projection (the intensity of the smell)

Emotions



Emotions are the result of an interaction between the environment and the internal world. They involve neurological (limbic system), biological (physical sensations) and psychological (perceptions) phenomena, and there may be several overlapping at the same time.

Liking



Appreciation tests are designed to measure the intensity of pleasure experienced when consuming a product.

Different response scales can be used: unipolar or bipolar, continuous or discontinuous, numerical, semantic, etc.

Example of a rating scale

1	2	3	4	5	6	7
I don't like it at all	I don't like	I don't like it too much	Neither I like nor dislike	I like it a little	Like	I like it a lot

Performance

In addition to aesthetic criteria, a fragrance composition must also meet technical criteria.

We talk about fragrance performance, in particular by studying the following criteria:

Diffusion

Diffusion refers to a fragrance's ability to spread through the ambient air.

Substantivity

Substantivity is the ability of a fragrance composition to maintain, after application, a significant olfactory perception threshold over time. This criterion of substantivity is often translated into the notion of a perfume's staying power (or tenacity), which however introduces a nuance of power in persistence. Persistence is an important criterion in today's perfumes.

Linearity

Linearity refers to a composition's ability to maintain its olfactory form over time once applied.

EXAMPLES OF LONGEVITY CLAIMS ON FRAGRANCES










Emotions

Emotions are the main organizing processes of **mental and behavioural processes**.

Referring to emotions and consumer well-being has become common practice in many industrial sectors, particularly in the cosmetic industry.

Given the complex nature of emotions, there is **no simple measure** of emotion.

Emotional response is made up of **three main aspects**:

SUBJECTIVE COMPONENT	VISCERAL COMPONENT	EXPRESSIVE COMPONENT
PSYCHOMETRIC METHODOLOGIES	PHYSIOLOGICAL METHODOLOGIES	BEHAVIORAL METHODOLOGIES
<ul style="list-style-type: none"> Declarative questionnaire  Image/Color Associative Tasks  	<ul style="list-style-type: none"> Measurements of autonomic nervous system activity Cardiac activity  Respiratory activity Electrodermal activity Body temperature Hormone levels  Brain activity  	<ul style="list-style-type: none"> Facial expressions  Voice expression 

EXAMPLES OF THE EMOTIONAL DIMENSION OF FRAGRANCES



Presentation of the project



 The perfumes studied were developed according to the following briefing :

1 TARGET CONSUMER

Mainly women and young people aged 16 to 35

2 target markets: France and the Netherlands

2 BENEFITS

Emotional dimension and longevity

- Study of the liking
- Performance study
- Study of emotions

3 THE RANGE

4 fragrances inducing 4 different emotions

4 METHODOLOGY

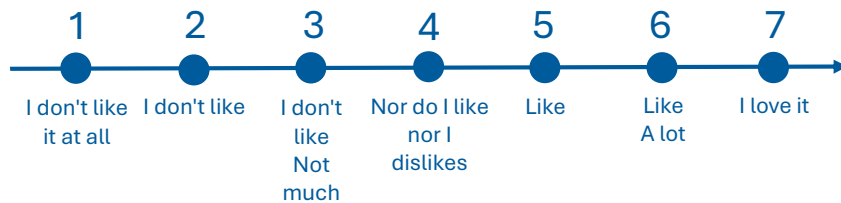
Choice of raw materials that generate emotions according to the principles of aromachology



TEST 1 : LIKING EVALUATION

Test design

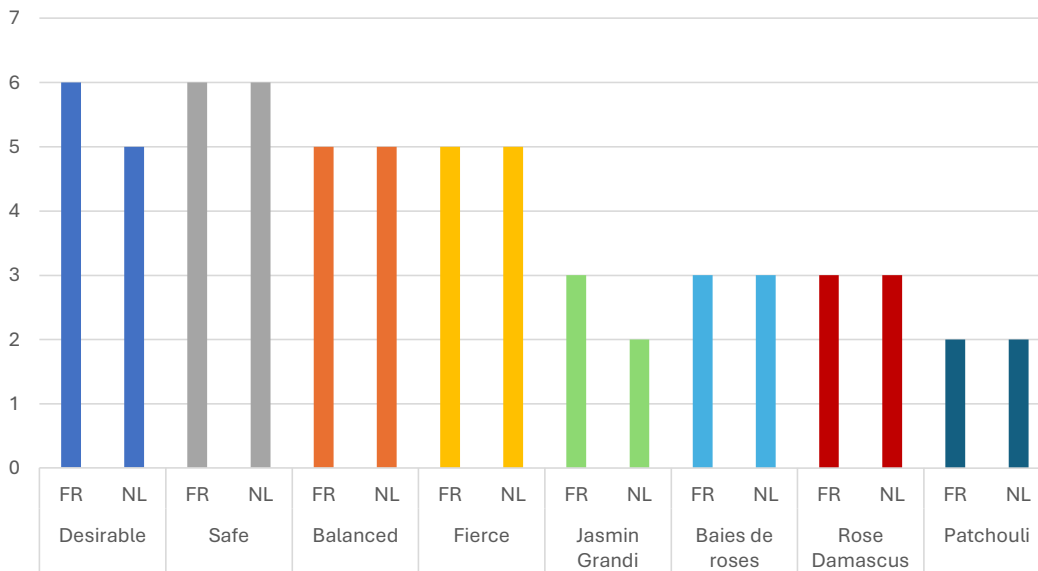
- 8 products (4 pure raw materials and 4 fragrances: Safe, Balance, Desirable, Fierce)
- Semi-monadic design of tests, each testing 8 products
- 72 consumers in the Netherlands and 72 consumers in France: 60 women, 12 men, perfume users,
- 18-35 years old (50% 18-25, 50% 26-35)
- Test carried out in the Netherlands and France
- Rating scale used:



TEST 1 : LIKING EVALUATION

Results

Fragrance liking



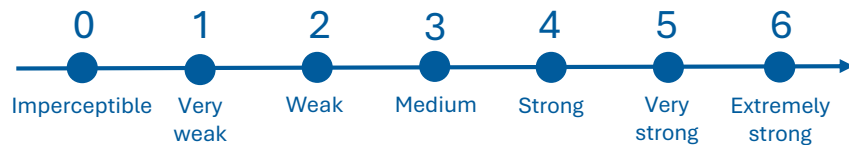
The results regarding the assessment are similar between the Netherlands and France.

The 4 raw materials are the 4 products least appreciated by French and Dutch consumers

TEST 2 : PERFORMANCE EVALUATION

Test design

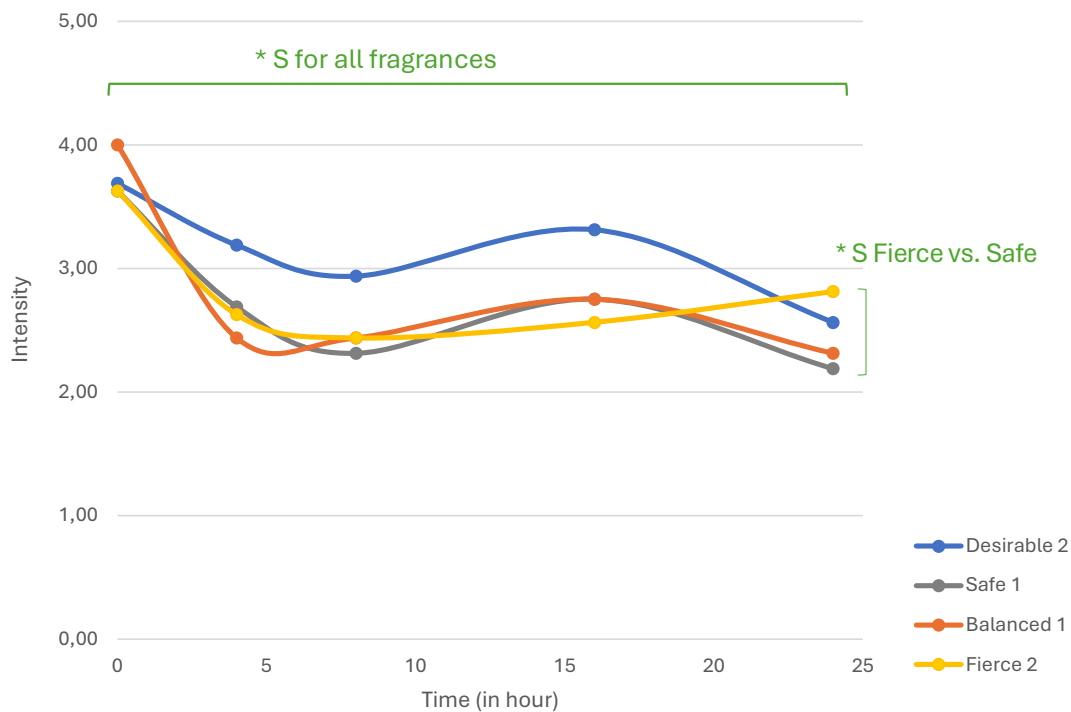
- 4 Products (4 fragrances) 8 trained panelists (4 women / 4 men)
- Intensity evaluation according to VDI 3882 part 1
- on a wet at T0h, T4h, T8h, T16h and T24h
- Description of the fragrances according to internal methodology
- Test carried out in France
- Intensity scale used:



TEST 2 : PERFORMANCE EVALUATION

Results

Intensity Performance Comparison
24-hour



All the perfumes studied are still perceived at a low to medium intensity after 24 hours.

% decrease in intensity over 24 hours.

Desirable	Safe	Balance	Fierce
30,5	39,7	42,2	22,4

Significant decrease in intensity for all fragrances between T0 and 24h

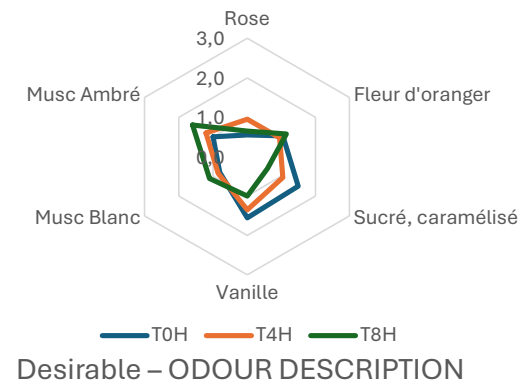
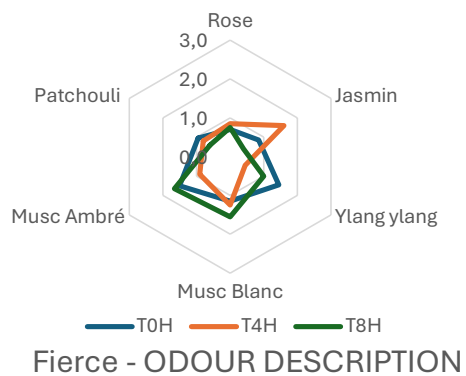
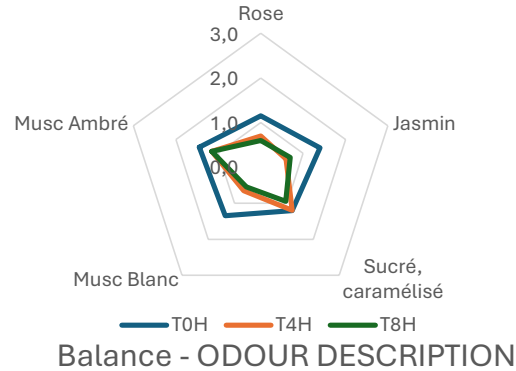
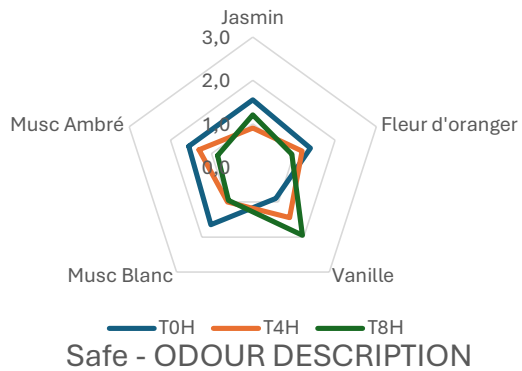
Significant difference at 24 hours between Fierce and Safe

Fierce is the fragrance that offers the best substance.

Desirable offers higher intensity and better substance than Safe and Balance

TEST 2 : PERFORMANCE EVALUATION

Results



The descriptions of the perfumes correspond generally well to their olfactory pyramid

The Balance perfume does not unfold its different facets over time

There is a decrease in the intensity of all the descriptors over time, which corroborates the less good substance of the Balance perfume

TEST 3 : EMOTION EVALUATION

Test design

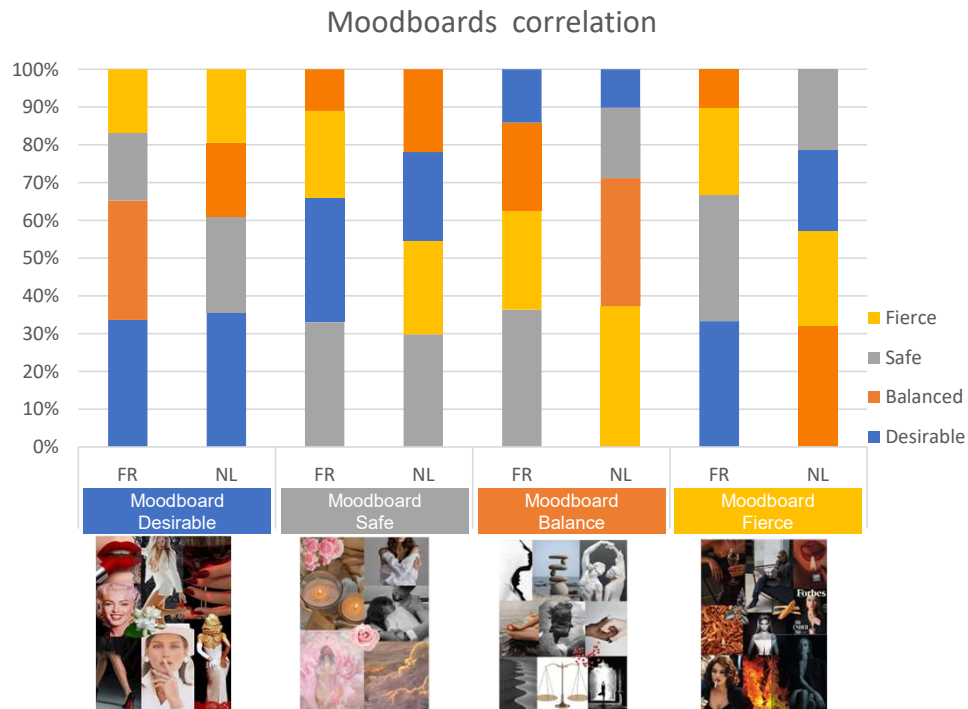
- 8 products (4 pure raw materials and 4 fragrances: Safe, Balanced, Desirable, Fierce)
- Semi-monadic design of tests, each testing 8 products
- 72 consumers in the Netherlands and 72 consumers in France: 60 women, 12 men, perfume users,
- 18-35 years old (50% 18-25, 50% 26-35)
- Test carried out in the Netherlands and France
- Questionnaire and association of images and colours



TEST 3 : EMOTION EVALUATION

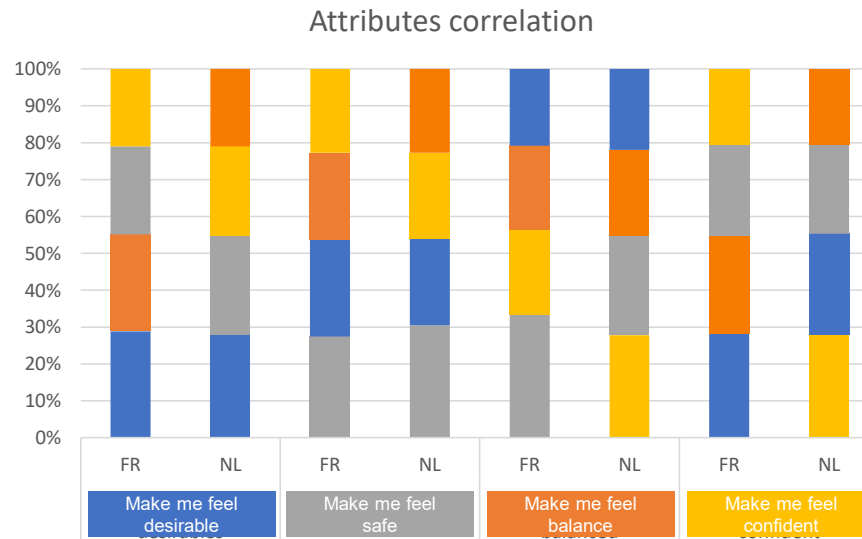
Results

Q6. Which of the following images best matches this fragrance?



Q7. This fragrance is... ?

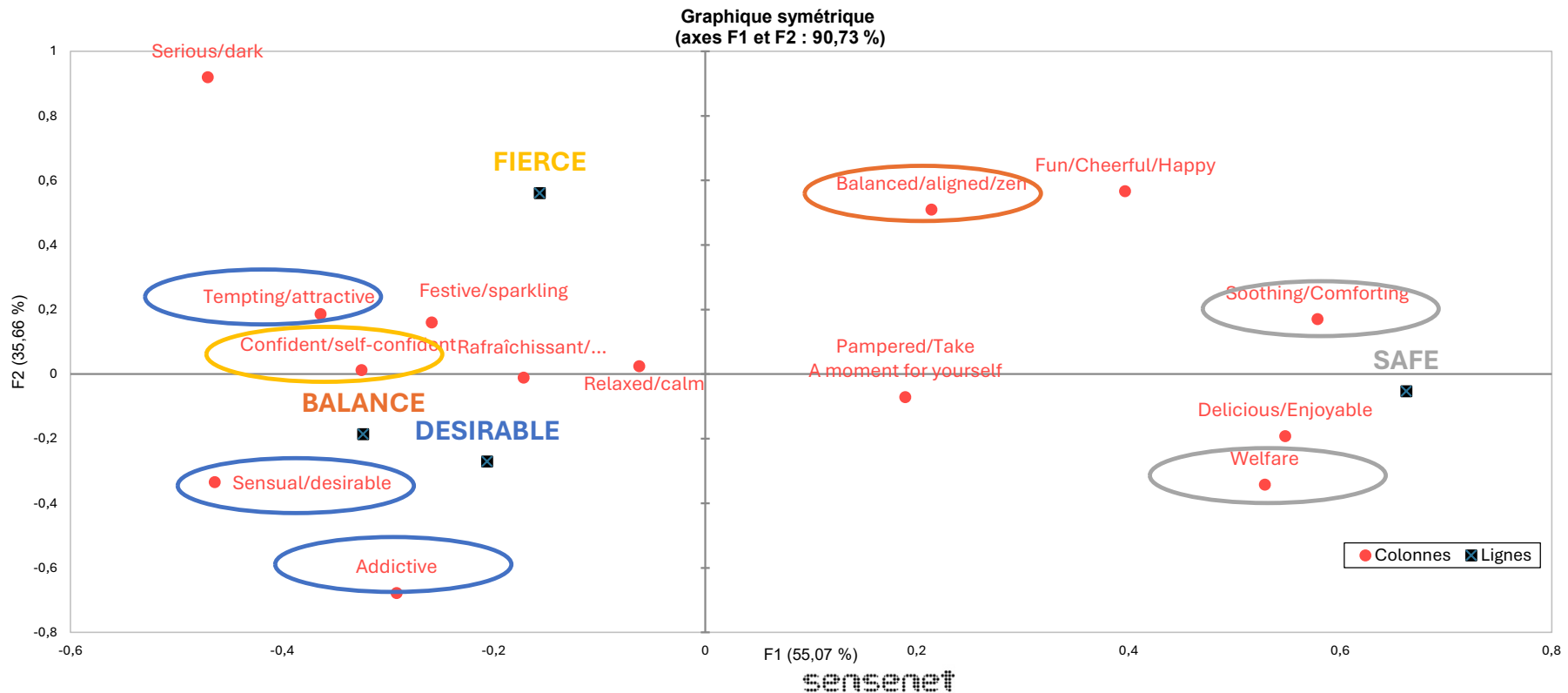
- 1- Promotes my mental health
- 2- Gives me confidence
- 3- Makes me feel desirable
- 4- Makes me feel safe
- 5- Makes me feel balanced



TEST 1 : EMOTION EVALUATION

Q4: Which mood category best matches this fragrance? (Read all the choices and check only one box)

1	Amusant/Gai/Heureux	7	Grave/sombre	13	Chaud/douillet
2	Rafrâchissant/revigorant/énergisant	8	Festif/pétillant	14	Confiant/sûr de soi
3	Tentant/attirant	9	Bien-être	15	Choyé/prendre un moment pour soi
4	Détendu/calme	10	Ostentatoire/fastueux	16	Thérapeutique/bon pour la santé
5	Apaisant/réconfortant	11	Délicieux/agréable	17	Équilibré/aligné/zen
6	Sensuel/désirable	12	Addictif	18	En sécurité/sans sentiment de peur



TEST 3 : EMOTION EVALUATION

Results

- The Desirable and Safe fragrances provoke emotions, in line with the fragrance development axis for the two countries, France and the Netherlands.

- The emotions given and the associated visuals for the Balance and Fierce perfumes do not match: a development axis to be reviewed or inappropriate semantics?

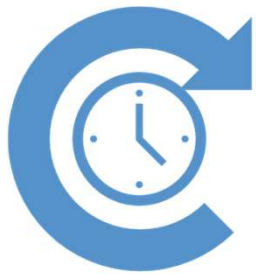
Conclusion

The study showed that it was possible to justify emotional claims and longevity performance: **Desirable and Safe fragrances.**

Declarative and associative methods can already provide a basis for justifying the emotional dimension.

Language can be a critical issue in multi-country studies: perfumes fierce and balance.

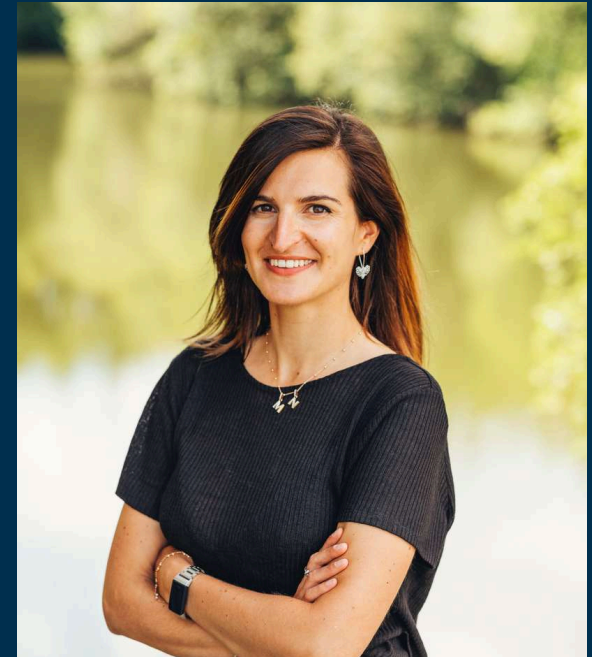
In such an approach, it remains difficult to know whether to question the development of the perfume or the methodology for evaluating emotions.



- Repeat declarative measures but use nonverbal responses to assess the impact of language.
- Integrate physiological and/or behavioral measures to cover the multidimensionality of emotions.
- The tests were carried out in Europe (culturally quite close), consider tests in India for example to integrate the cultural aspect with the emotions



Thank you. 



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