

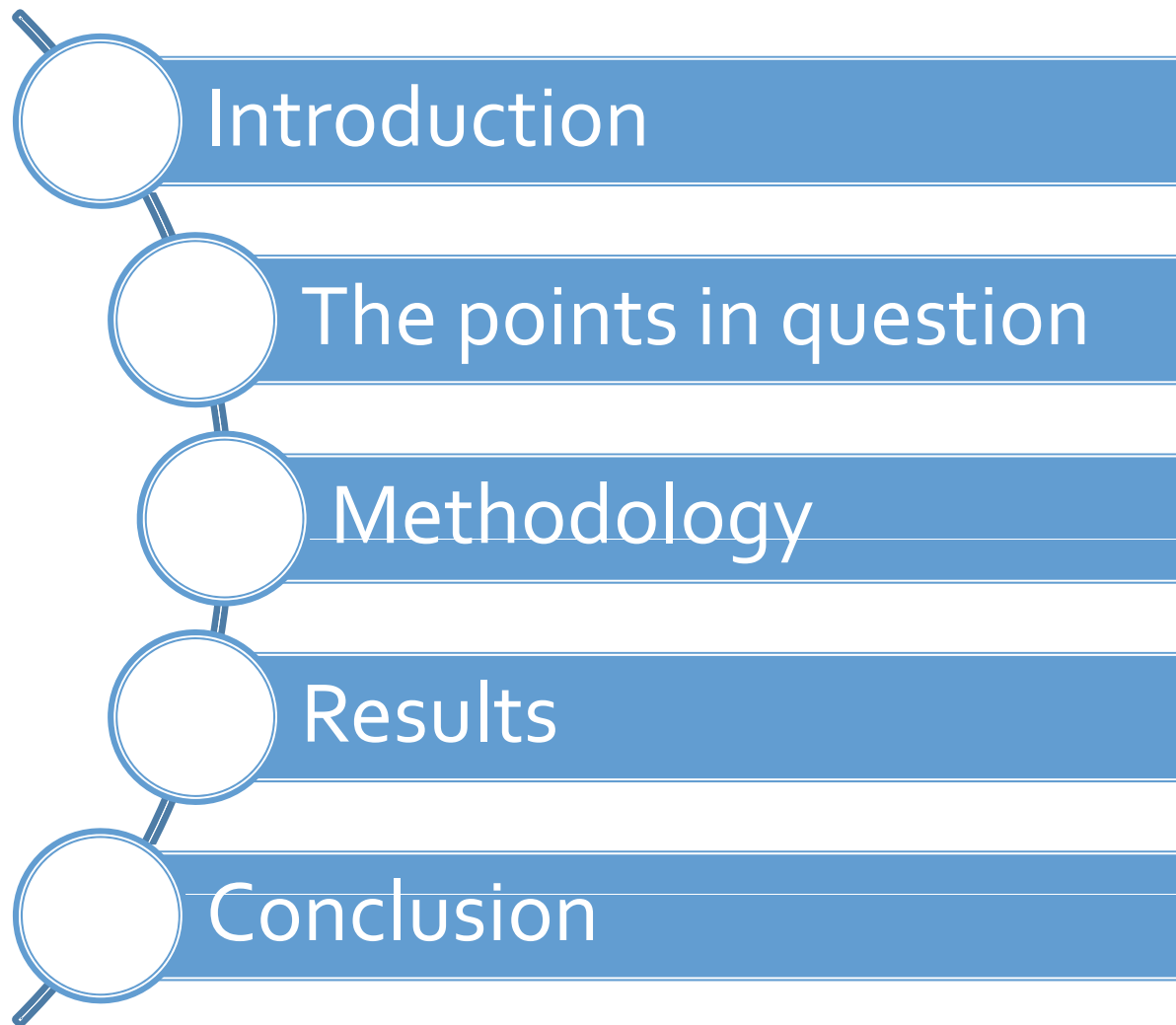
# A "sonic branding" methodology for matching brand values to a sound logo: the Sennheiser case study



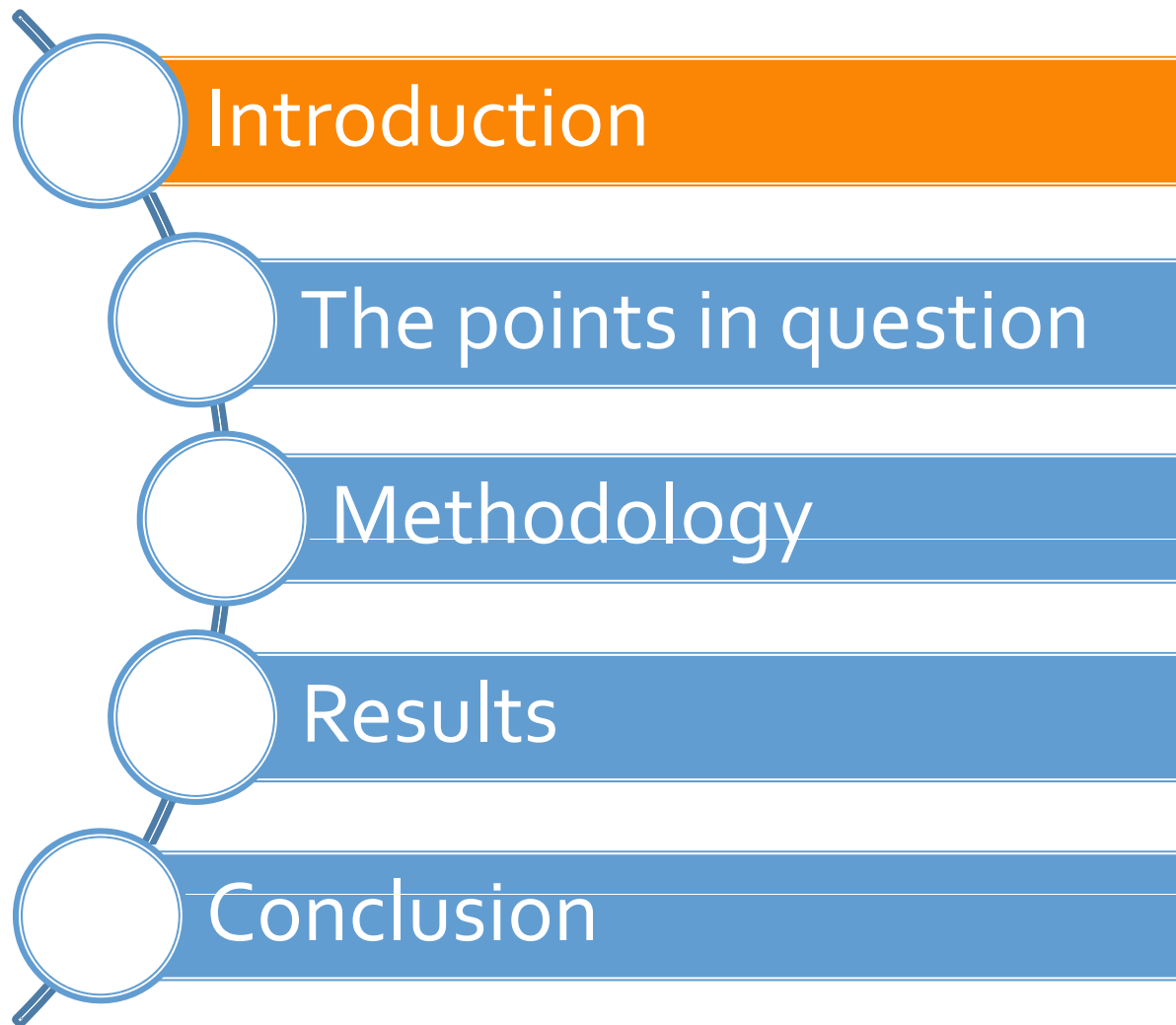
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Applied Statistics  
11<sup>th</sup> Sensometrics  
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# Definitions

- Sonic branding (also called “Sound design”) consists in creating a single melody for a retail space, an advertisement or a website.

*Tony Jazz & Mathieu Billon, [On Air agency](#)*

- The sound logo is the shortest format (5 or 6 musical notes) of sounds that recreates the brand identity.

- Example :

## Brand identity of INTEL :

- Logo :  

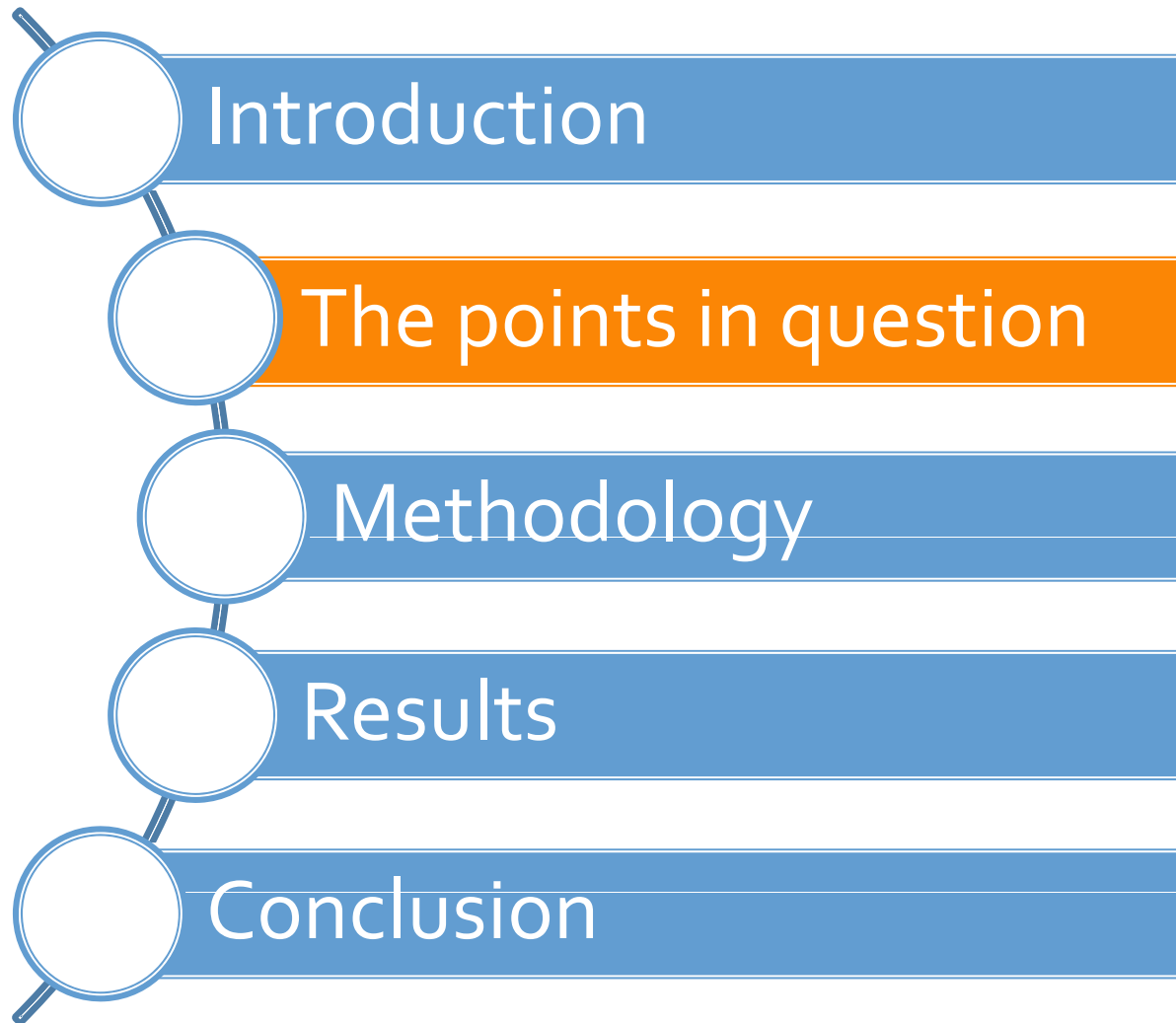
- **Slogan** : «Inspired innovation that’s changing the world »
- **Values** : Innovation, Performance, Technology

# Context

- Previously, brand communication was mainly focused on visual aspect. Music and sound were not used in a rational way.
- Today, sound is taking on a new dimension in marketing.
- Sonic branding is a new concern for companies.

→ no precise methodology for the creative process

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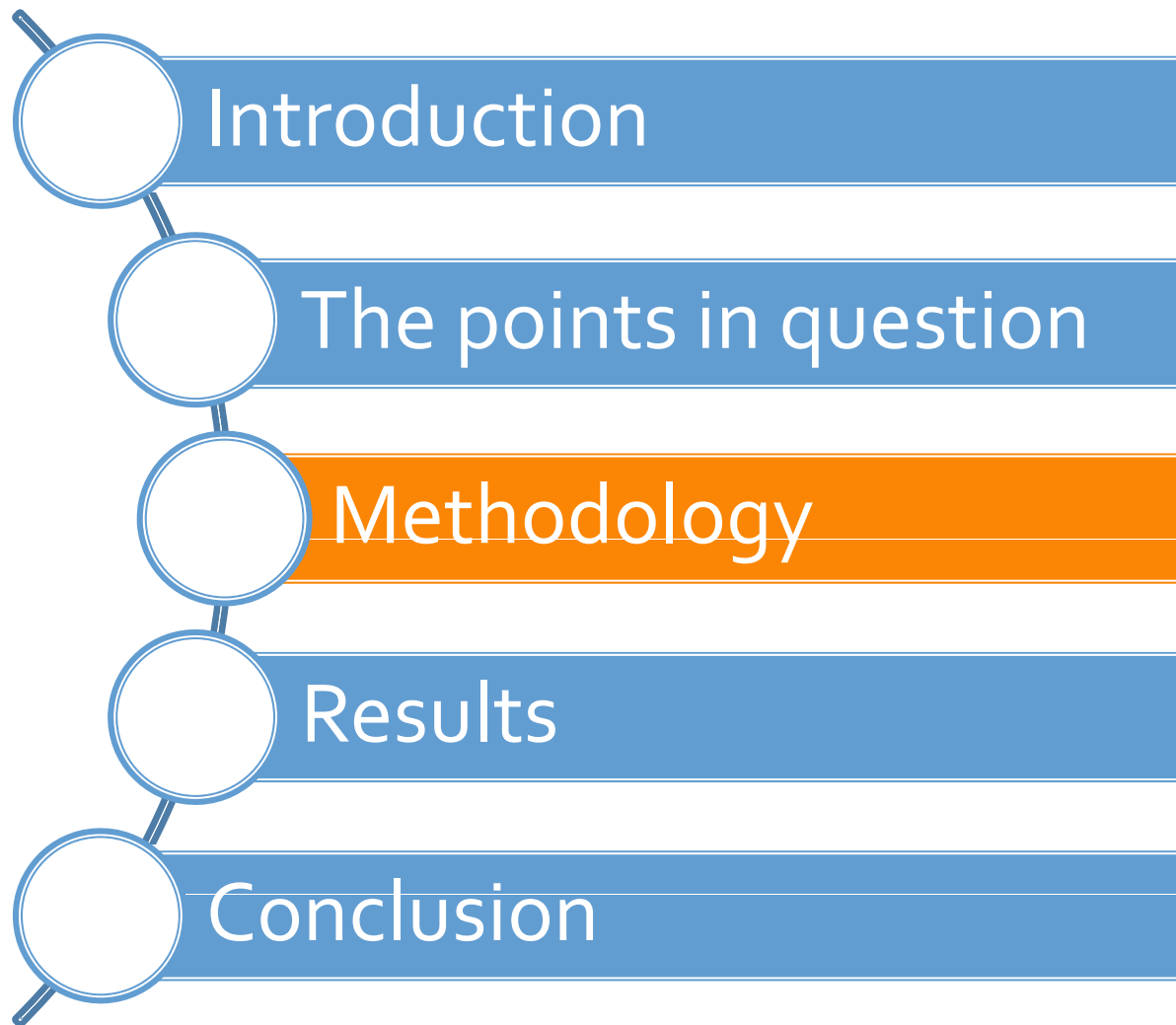


# The points in question

- How to create a sound logo that is both characteristic and representative of a company ?
- How to choose the sound logo that conveys brand values best ?



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# Choice of the product space

- Sound : a complex stimulus.

Uncontrollable factors	Controllable factors
The melody	The pitch The tempo The modes : minor and major The instrument
The accompaniment	The instruments The balance

# Questionnaire

## ■ Structure of the questionnaire :

1. Association of sound logos with corporate values

2. Briefing

3. Appropriateness of each sound logo to the brand with JAR emotion scales

- Appropriateness mark of the logo to the brand

- Textual : Why ?

For you, what are the values that the company wishes to highlight through these different sound logos ?  
(Check all that apply).

The diagram illustrates the questionnaire structure. At the top, a box labeled 'BRAND' is connected by double-headed arrows to three sound logos labeled 'Sound 1', 'Sound 2', and 'Sound 3'. Below this, a table titled 'Presentation of brand identity and associated values' is shown. The table has columns for 'Sound 1', 'Sound 2', and 'Sound 3'. The first row is 'Presentation of brand identity and associated values'. The second row is 'How do you assess the restitution of Semihelser brand values by this sound logo?'. The third row is 'How do you assess the appropriateness of the following emotions to this logo?'. Below the table is a JAR emotion scale table.

	0	1	2	3	4	5	6	7	8	9	10	
Cheerful												
Not adapted at all												
Surprising												
Perfectly adapted												

Application of the methodology:

The Sennheiser case study



# Case study: Sennheiser

- International brand but its sound logo is not very well known in France.
- Briefing presented to the panellists :



One of the biggest **audio device manufacturers** in the world, specialized in the production of **microphones** and **headphones**.

The SENNHEISER's values are **technology**, **independence** and **innovation**.

This **premium** brand associates « **elegance** », **high-technology** and the **highest capacity for innovation** on the market.

The SENNHEISER sound is a « **different** » sound, an « **expert** » sound which seduces the most professional and demanding music lovers.

- Created in **1945**, head office in **Germany**.
- Family business with a **passion** for sound
- A German company, **expert in sound quality** for more than 65 years.
- **2100** employees.
- **4 plants**: 2 in Germany, 1 in Ireland, 1 in the USA.
- Brand present in **40 countries**.
- **Company sales**: **468 million €** in 2010.



# Case study: Sennheiser

- Determining parameters for our versions of the sound logo :
  - Tempo (80, 120, 160)
  - Pitch (Octave 1, Octave 3, Octave 5)
  - Instruments (Accordion, Piano, Violin)
- Duration of the questionnaire: 20-25 min
  - 12 logos to listen to
  - 105 judges

# Values association

- 1<sup>st</sup> part of the questionnaire: Selected company values

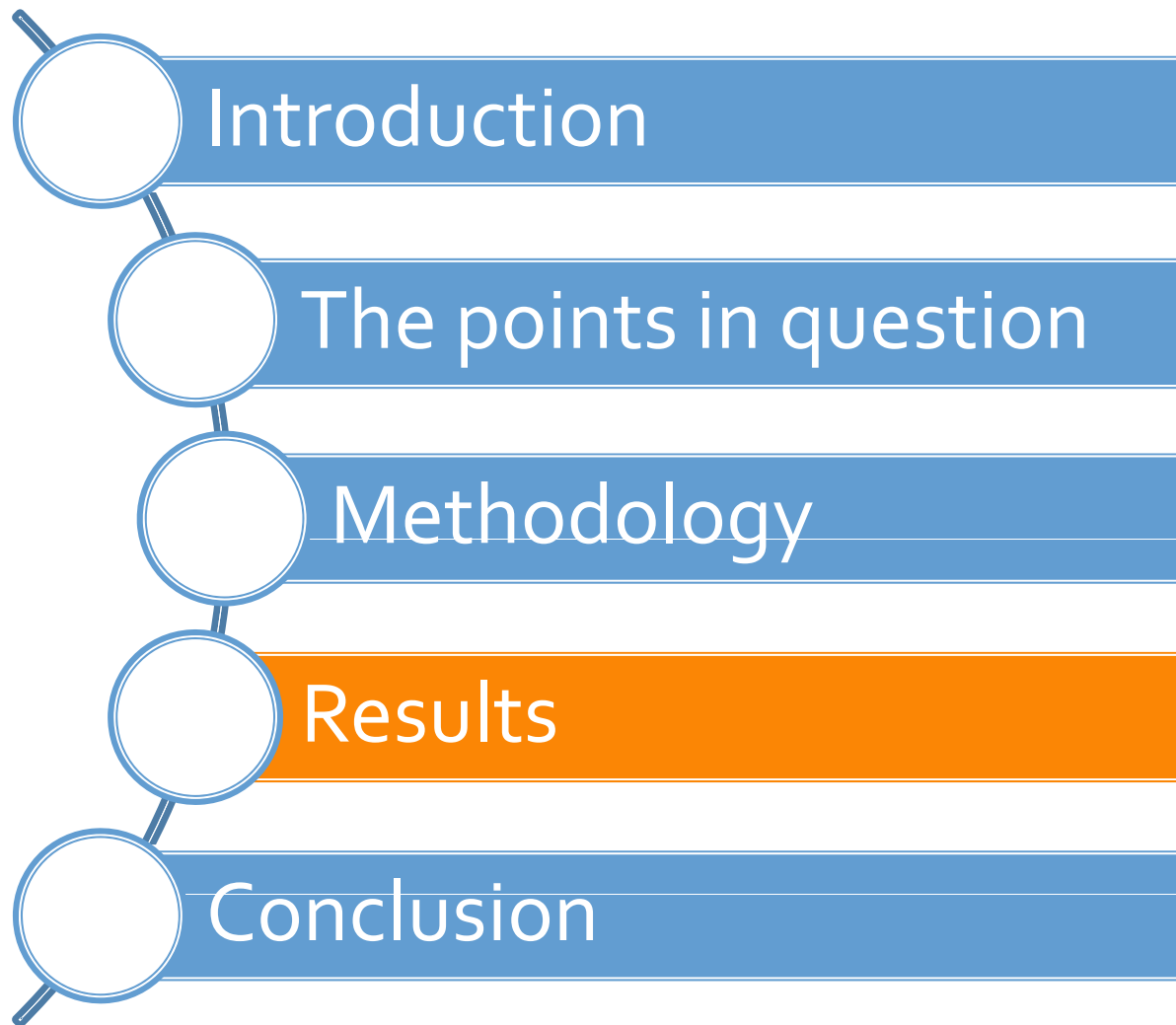
		Values	Opposite values
Senneheiser Values	{	Innovation	Traditional
		Premium	Popular
		Technology	Artisanal
Other brand values	{	International	Proximity
		Sobriety	Passion
		Fun	Serious
		Simplicity	Complexity
		Freedom	Conviviality
		Performance	Human

# Adequacy with brand identity

- 3<sup>rd</sup> part of the questionnaire: after the briefing
  - Selected emotions in connection with Sennheiser :

Emotions	Why ?	
Serious	International	Sennheiser Values
Surprising	Innovation	
Exciting	Technology	
Sensual	Elegance	
Joyful	Other	Other Values
Energetic		
Sad		
Warm		

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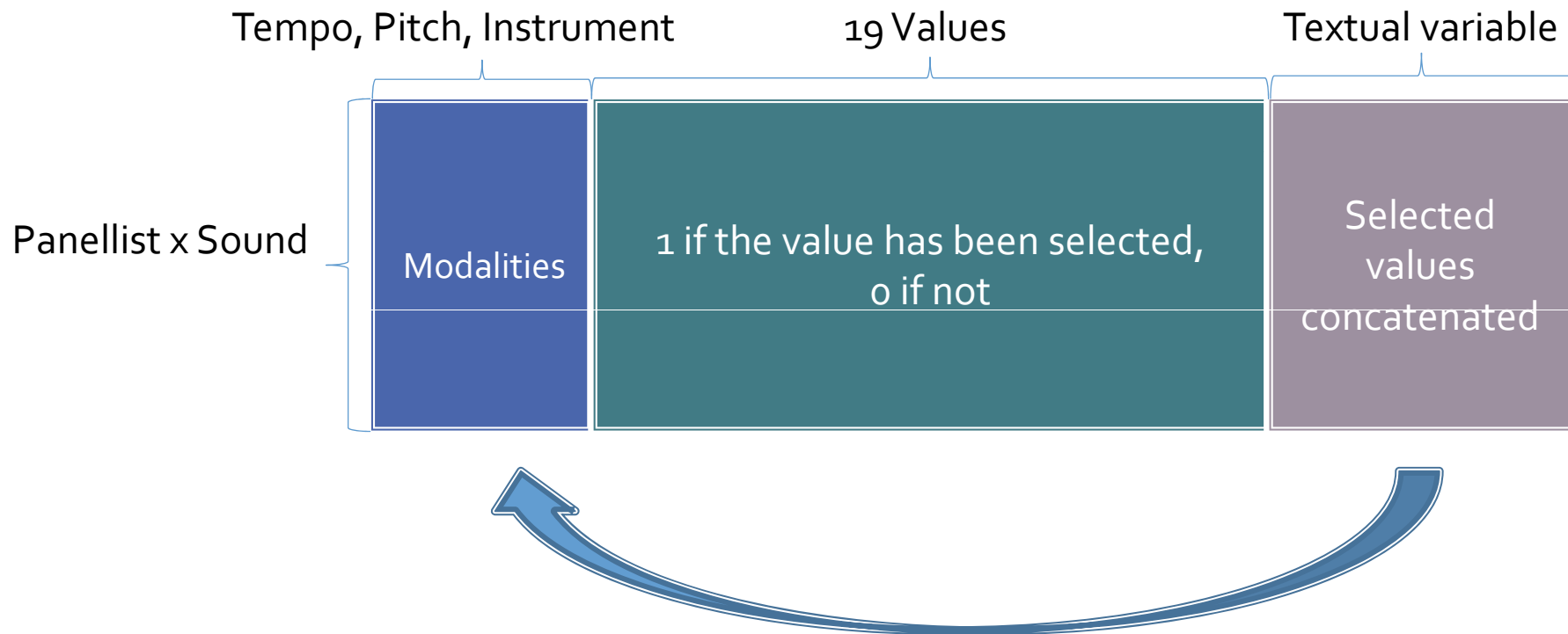
# Results

- 1 - Analysis of the values associated with sound logos (before briefing)
- 2 - Analysis of the appropriateness of emotions with the sound logos (after briefing)
- 3 - Validation of the chosen version

# 1- Association to values (before briefing)

## Textual Analysis

- **Dataset :**



# 1- Association to values (before briefing)

## Textual Analysis

### ■ Instrument

Accordion	Popular Artisanal Traditional Conviviality Originality Fun
Piano	Sobriety Humanity Innovation Simplicity Freedom Passion
Violin	Complexity Premium Performance Passion Serious

### ■ Pitch

Octave 1	Serious Sobriety Artisanal Traditional
Octave 3	Conviviality Popular Freedom
Octave 5	Technology Innovation Originality Fun Performance

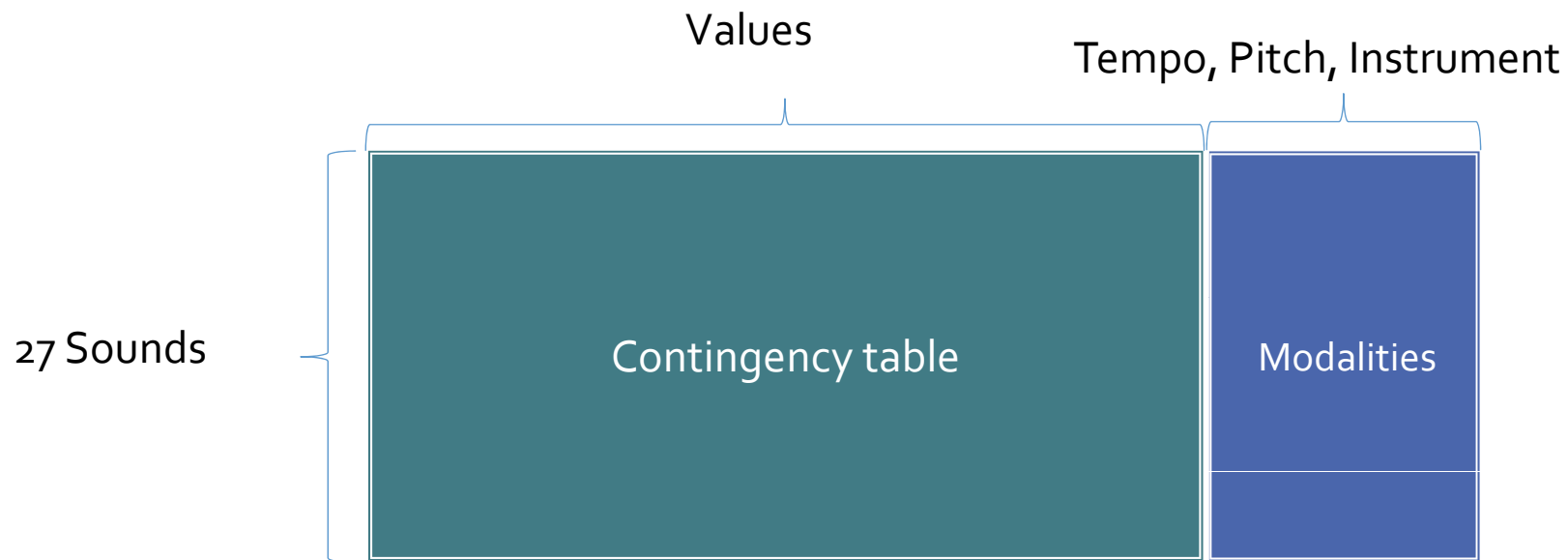
### ■ Tempo

Tempo 80	Serious Complexity
Tempo 120	-----
Tempo 160	Conviviality Proximity Fun Originality

# 1- Association to values (before briefing)

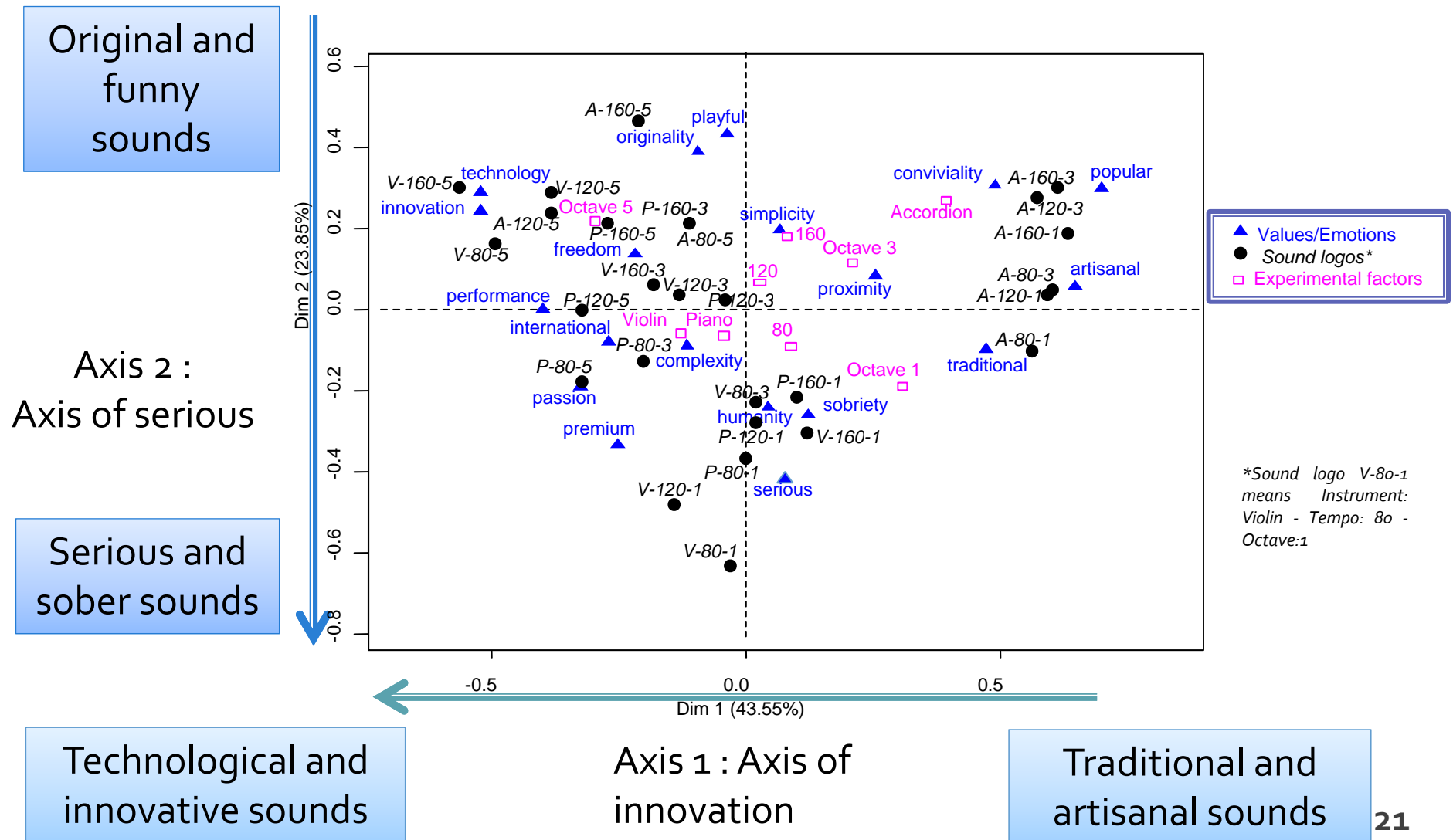
## Multidimensional analysis

- Dataset :



# 1- Association to values (before briefing)

## Multidimensional analysis

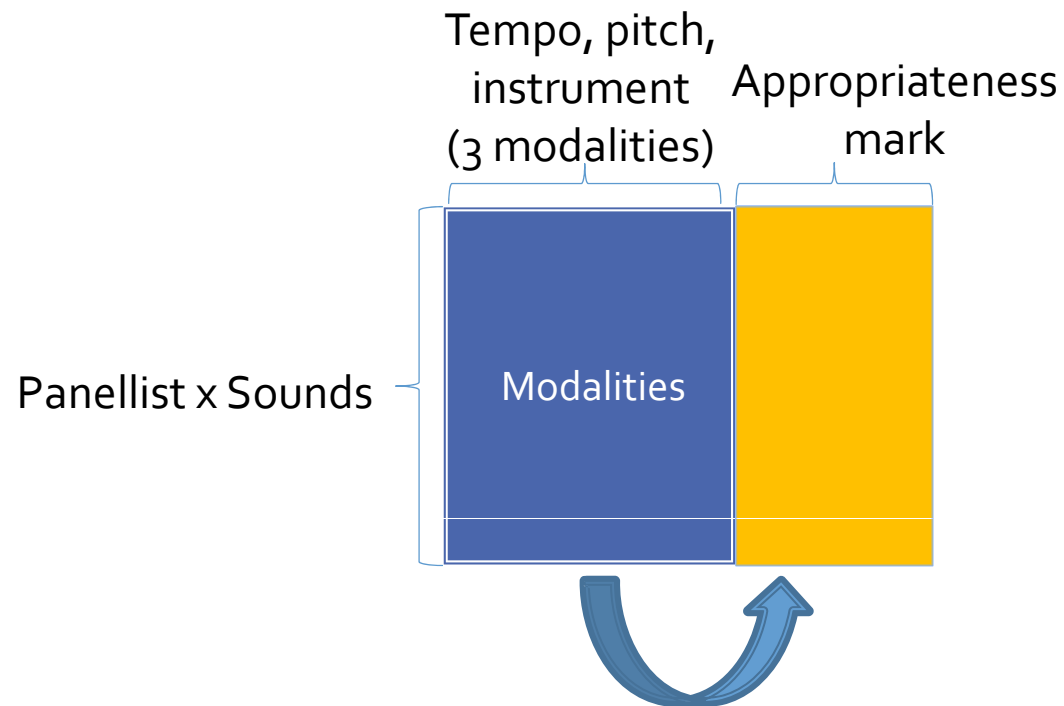


# Results

- 1 - Analysis of the values associated with sound logos  
(before briefing)
- 2- Analysis of the appropriateness of the emotions  
with the sound logos (after briefing)
- 3 - Validation of the chosen version

## 2- Appropriateness with emotions

### Analysis of Variance



Analysis of variance :  
Appropriateness mark ~ Panellist + Tempo + Pitch + Instrument + Interactions

# 2- Appropriateness with emotions

## Analysis of Variance

### Principal Effects

#### ■ Pitch

	Coefficient	Critical Probability
Octave 1 (low-pitched)	-0.32	5.82E-05
Octave 3 (Medium)	0.55	6.90E-12
Octave 5 (high-pitched)	-0.23	3.84E-03

#### ■ Instrument

	Coefficient	Critical Probability
Accordion	-1.05	3.02E-38
Piano	1.03	3.25E-36
Violin	0.03	7.44E-01

#### ■ Tempo

	Coefficient	Critical Probability
80	-0.67	4.40E-17
120	0.14	8.62E-02
160	0.54	1.67E-11

### Interactions

Pitch ↔ Tempo

Tempo ↔ Instrument

Not significant

Pitch ↔ Instrument

	Coefficient	Critical Probability
Pitch-5 : Accordion	0.48	2.15E-05
Pitch-3 : Violin	0.38	6.79E-04
Pitch-1 : Violin	0.23	4.38E-02

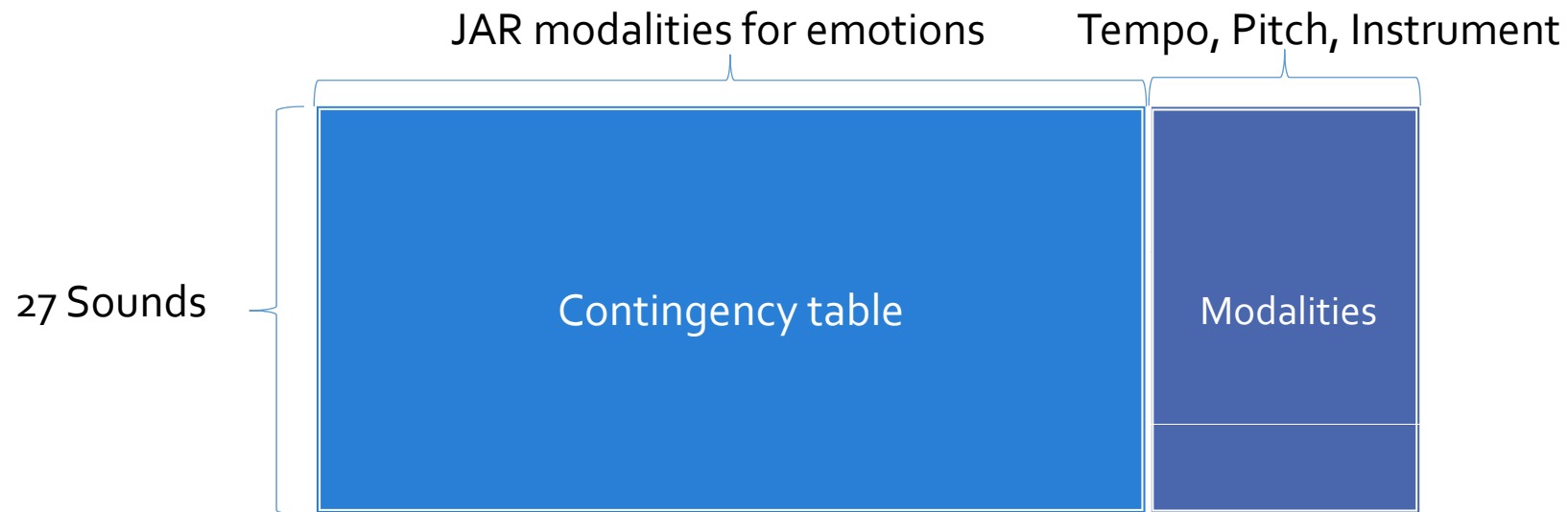
	Coefficient	Critical Probability
Pitch-3 : Accordion	-0.38	7.55E-04
Pitch-5 : Violin	-0.61	7.41E-08



## 2- Appropriateness with emotions

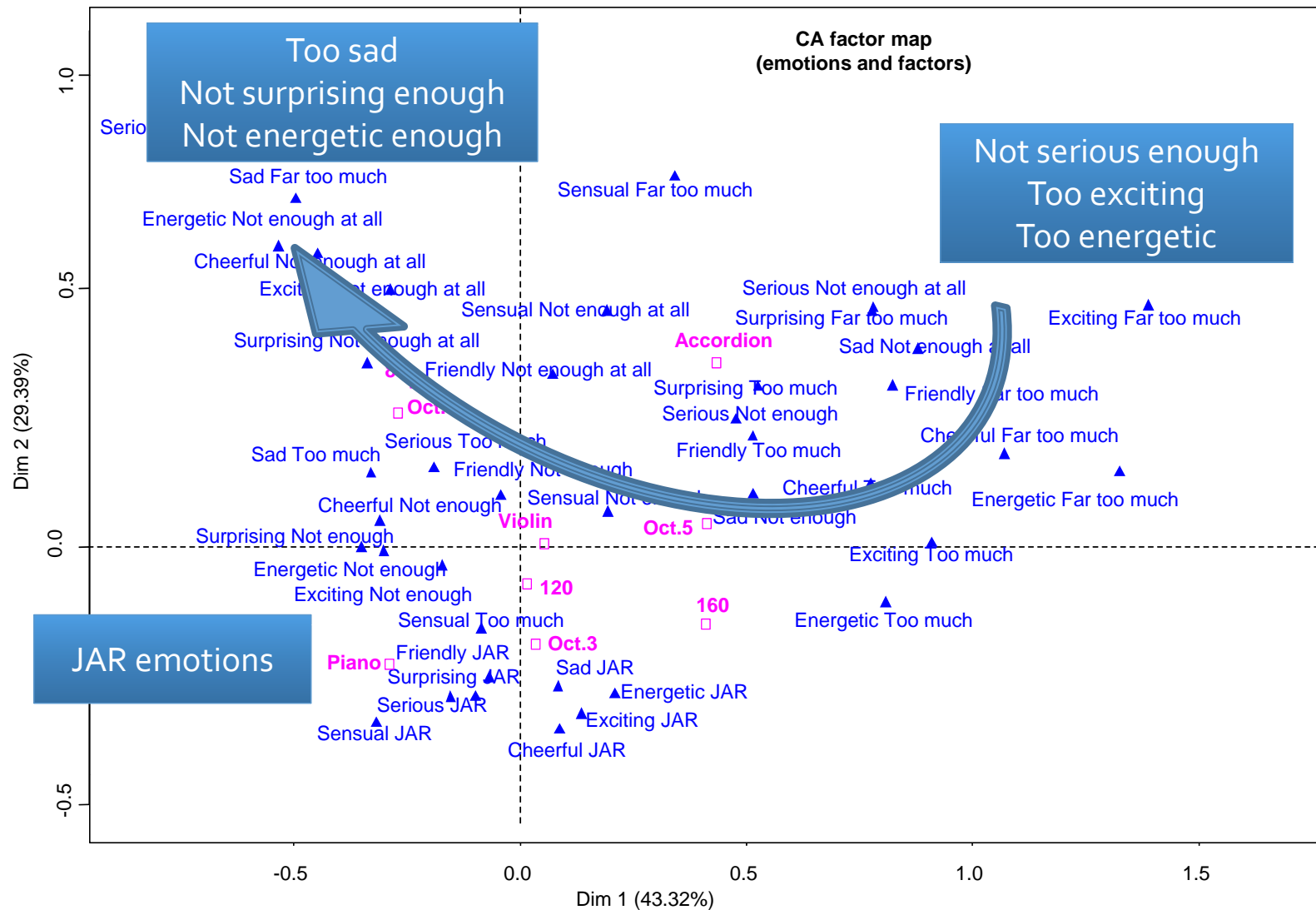
### Multidimensional analysis

- Dataset :



# 2- Appropriateness with emotions

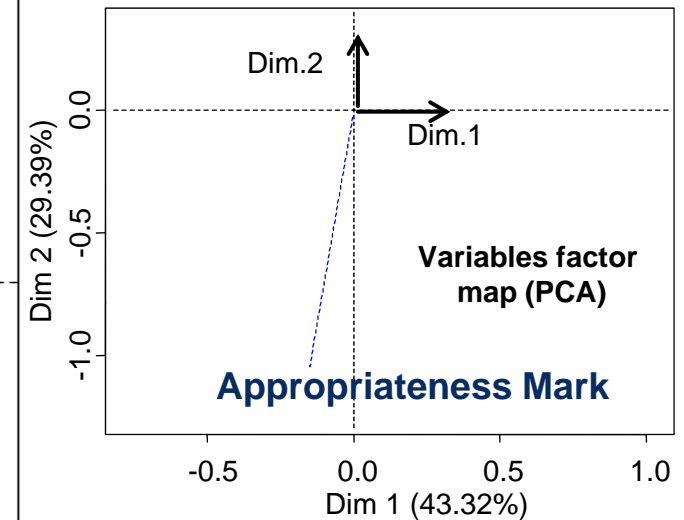
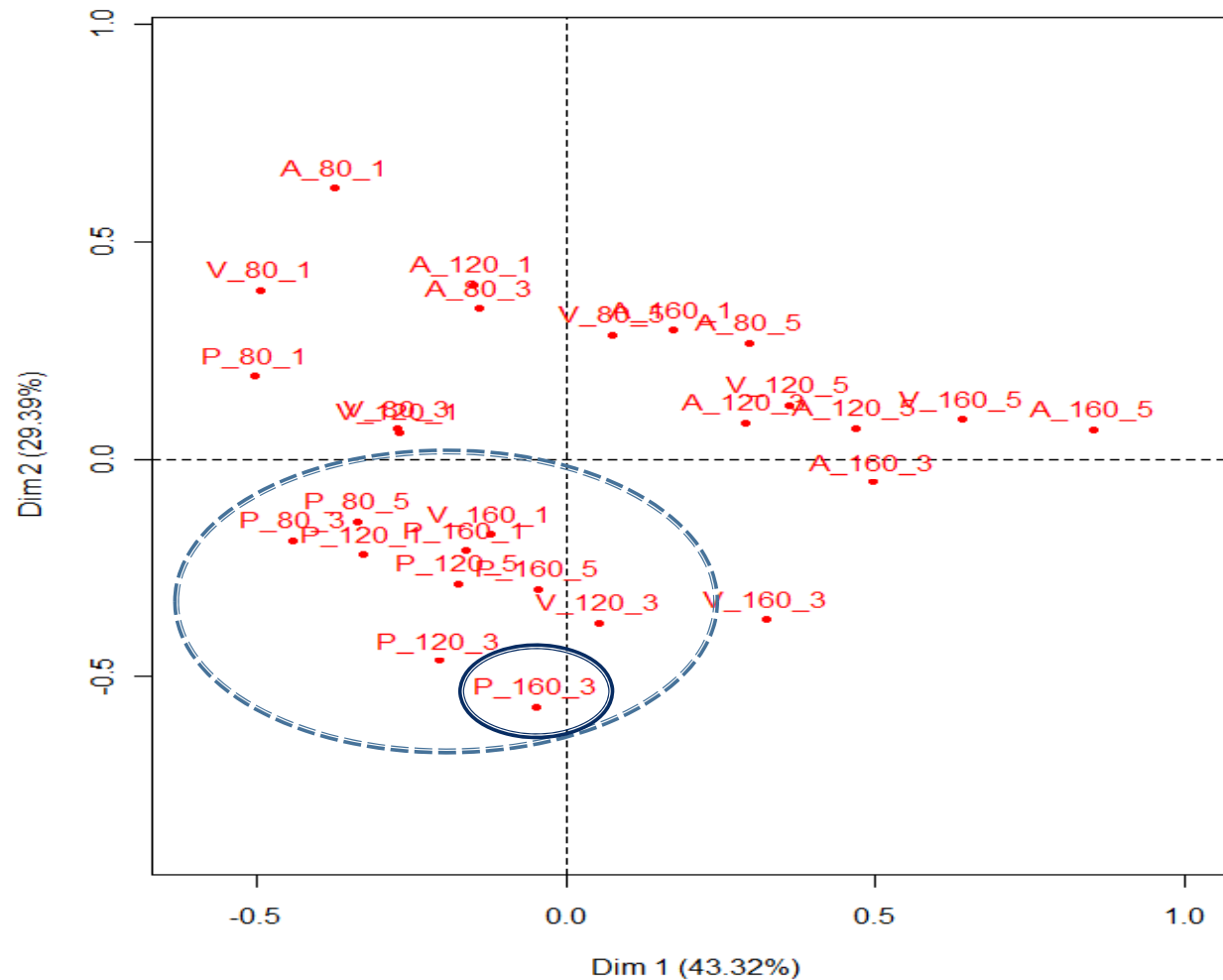
## Multidimensional analysis



## 2- Appropriateness with emotions

# Multidimensional analysis

Sound logos map



## 2- Appropriateness with emotions

- Combination considered as the most appropriate

Instrument : Piano

Pitch: 3 (medium)

Tempo: 160

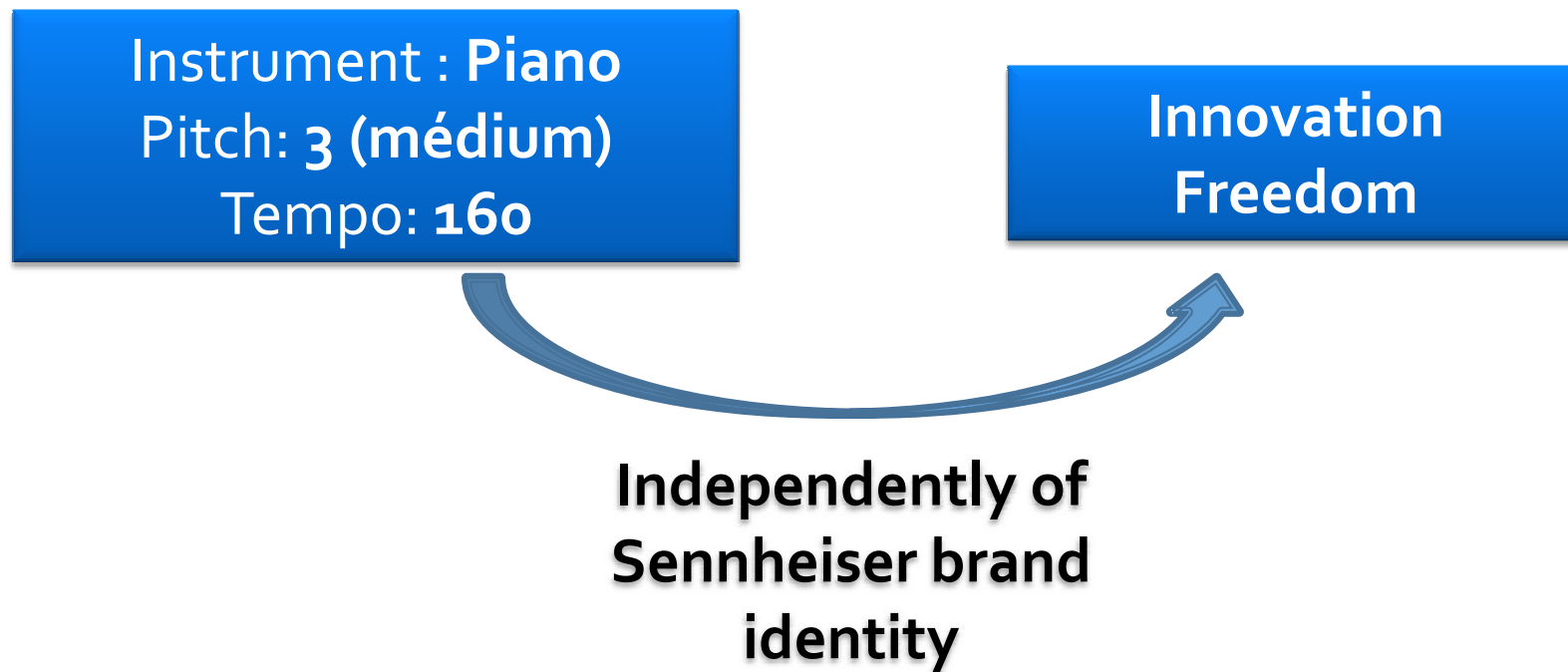
➔ Does the favorite version retransmit Sennheiser values well?

# Results

- 1 - Analysis of the values associated with sound logos  
(before briefing)
- 2- Analysis of the appropriateness of emotions with the  
sound logos (after briefing)
- 3 - Validation of the chosen version**

# 3- Validation of the chosen version

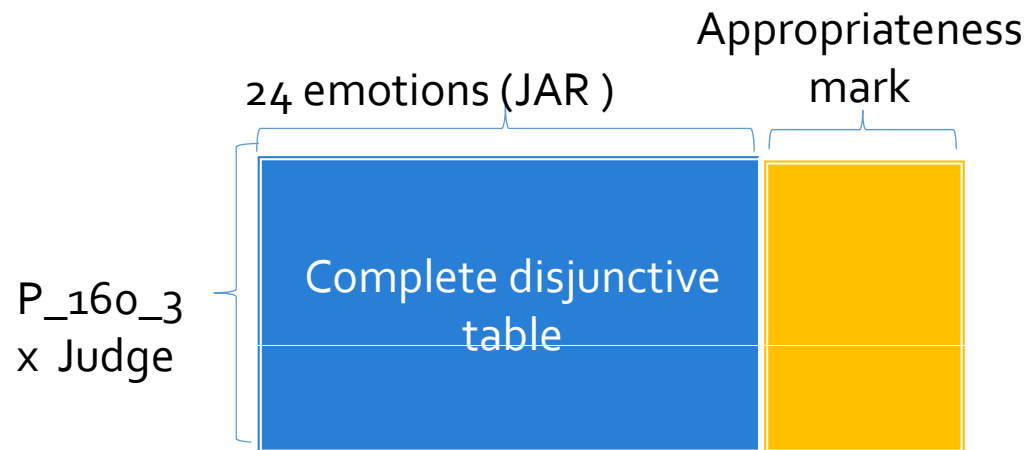
## Textual analysis by product



# 3- Validation of the chosen version

## Penalty analysis

- How to optimize the chosen version?
  - Which emotions penalize the most?
    - ➔ Penalty Analysis :
- Recoded into three levels JAR (Not enough -JAR-Too much)



Appropriateness mark~ Joyful.Not\_Enough + Joyful.Too\_Much + Exciting.Not\_Enough + (...)

# 3- Validation of the chosen version

## Penalty analysis

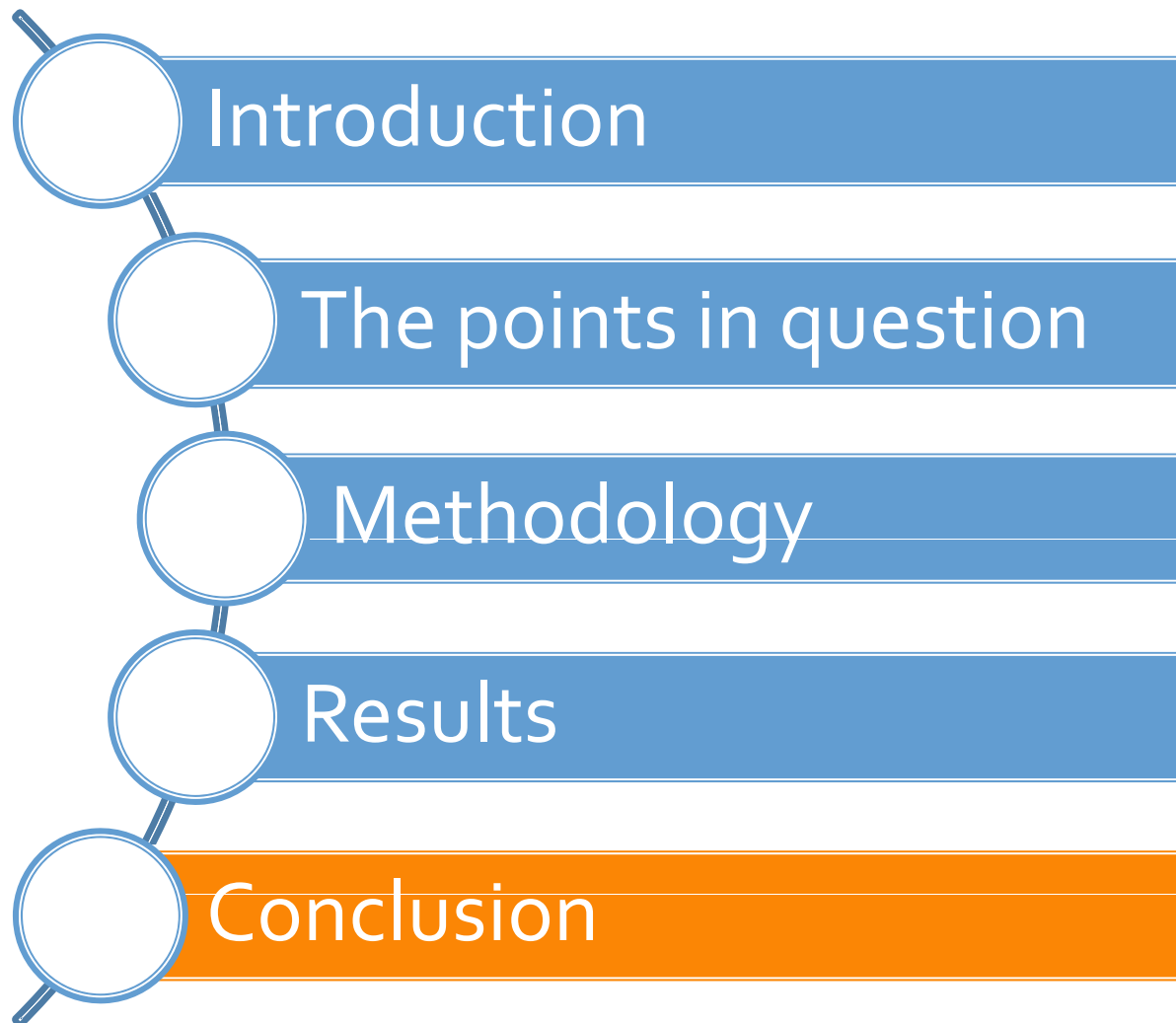
Penalty Analysis (complete model)

Piano 160 Medium





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# Conclusion

- Original and controlled approach of sonic branding
  - Quantitative
  - Definition of experimental factors
- Questionnaire in two steps
  - Association of values without knowledge of the brand
  - Notion of appropriateness to a brand identity
- Association qualitative study ↔ quantitative study
  - Choice of the melody, of the arrangements
  - Melody optimization

# Acknowledgments

- M. Sébastien LÊ
- Jessica MAGNIER (production of the sound logos)
- Sensometrics organizing team

Thank you for your attention