Music Descriptors Supplementary Materials

Brendon Mizener

5/12/2021

Supplementary Materials: Experiment 1

Table 1: Musical Qualities and the provided survey response options, English.

Harmonic Material	Tempo	Meter	Density	Genre	Articulation
Diatonic: Major	Very slow	Simple Duple	Very sparse	Baroque	Staccato
Diatonic: Minor	Slow	Simple Triple	Moderately sparse	Classical	Marcato
Blues	Moderately Slow	Simple Quadruple	More sparse than dense	Romantic	Legato
Chromatic	Moderate	Compound Duple	More dense than sparse	Impressionist	Tenuto
Whole tone	Moderately Fast	Compound Triple	Moderately Dense	Modern	Other
Modal	Fast	Compound Quadruple	Very Dense	Jazz/Blues	
Quintal/Quartal	Very Fast	Complex		Contemporary	
Ambiguous				Other	
Other					

	Contour	Motion	Range	Dynamics
	Ascending	Conjunct	Narrow	Soft
	Descending	Disjunct	Moderate	Moderate
	Arch	Combination of conjunct	Wide	Loud
	Undulating	and disjunct	Very Wide	Varied: gradual crescendo
	Pendulum	I do not think this	I do not think this	Varied: gradual
	Terrace	excerpt has a melody	excerpt has a melody	decrescendo
	I do not think this	Other		Some of each, soft and
	excerpt has a melody			loud
	Other			Other

Table 2: Musical Qualities and the provided survey response options, French.

Harmonie	Vitesse	Mesure	Densité	Genre	Articulation
Diatonique: majeur	Très lente	Mesure simple, deux temps	Très épurée	Baroque	Staccato
Diatonique: mineur	Lente	Mesure simple, trois temps	Modérément épurée	Classique	Marcato
Gamme Blues	Moyennement lent	Mesure simple, quatre temps	Plutôt épurée que dense	Romantique	Legato
Chromatique	Moyenne	Mesure composée, deux temps	Plutôt dense qu'épurée	Impressioniste	Tenuto
Gamme par ton	Moyennement rapide	Mesure composée, trois temps	Moyennement dense	Moderne	Autre (précisez)
Modal	Rapide	Mesure composée, quatre temps	Très dense	Jazz-Blues	
Ambigu	Très rapide	Mesure complexe		Contemporarain	
Je ne pense pas que cet extrait ait une mélodie				Autre (précisez)	
Autre (précisez)					

	Contour	Mouvement	Ambitus	Dynamiques
	Ascendant	Conjoint	Ambitus resserré	Doux
	Descendant	Disjoint	Ambitus modéré	Moyen
	Forme en arche	Une combinaison de conjoint et disjoint	Ambitus grand	Fort
	Petites vagues successives	Je ne pense pas que cet extrait ait une mélodie	Ambitus très grand	Varié : crescendo progressif
	Grandes vagues successives	Autre (précisez)	Je ne pense pas que cet extrait ait une mélodie	Varié : decrescendo progressif
	Plusieurs phases descendantes successives			Un peu des deux: doux et fort
	Je ne pense pas que cet extrait ait une mélodie			Autre (précisez)
	Autre (précisez)			

[Figure 1 about here.]

[Figure 2 about here.]

[Figure 3 about here.]

[Figure 4 about here.]

[Figure 5 about here.]

[Figure 6 about here.]

[Figure 7 about here.]

[Figure 8 about here.]

Supplementary Materials: Experiment 2

[Table 1 about here.]

[Figure 9 about here.]

[Figure 10 about here.]

[Figure 11 about here.]

[Figure 12 about here.]

Supplementary Materials: Experiment 3

[Figure 13 about here.]

Figure 1 CA: All Row and column contributions for the first two dimensions of the qualities survey.
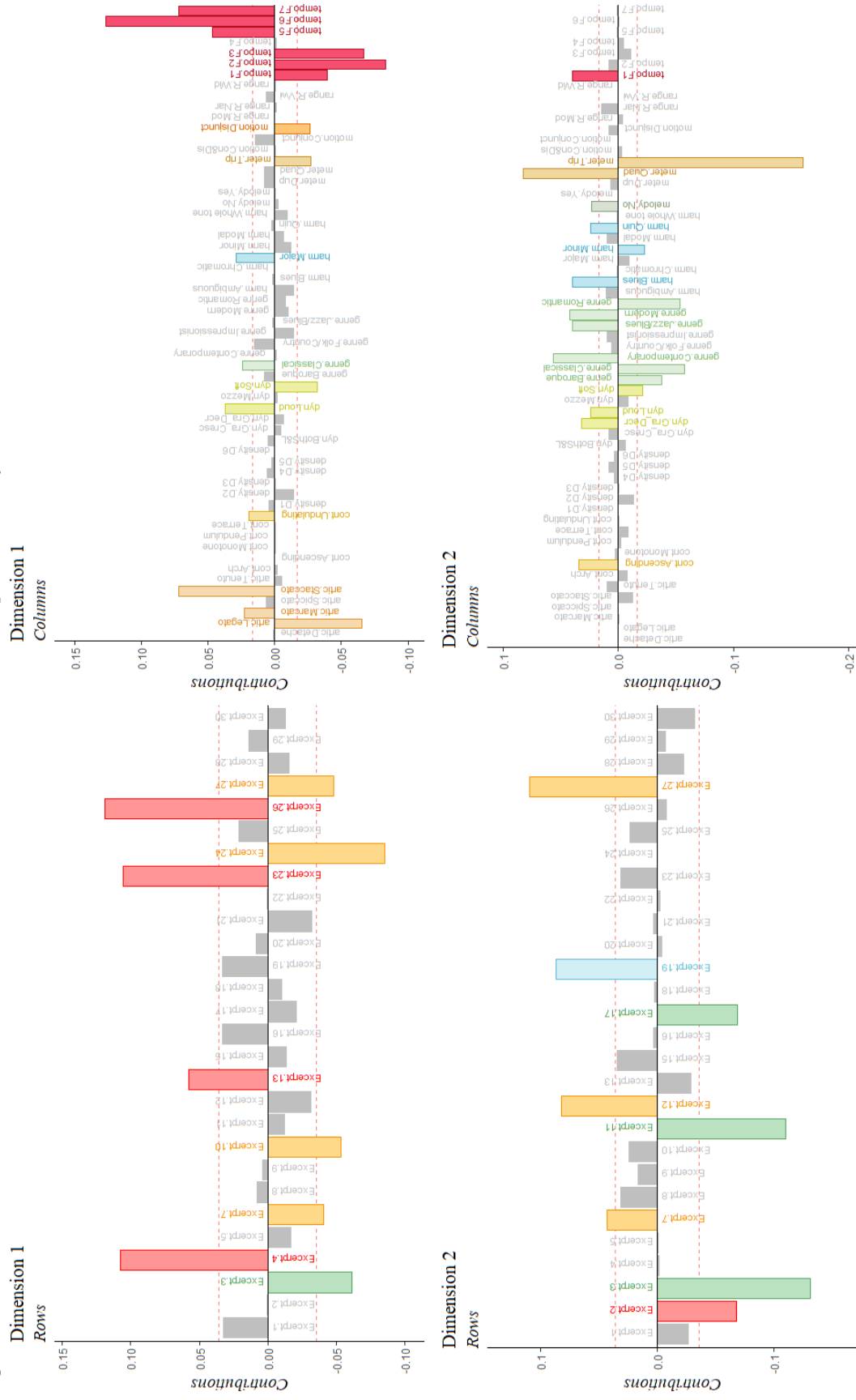
Figure 2 CA: All Row and column contributions for the first two dimensions of the adjectives survey.
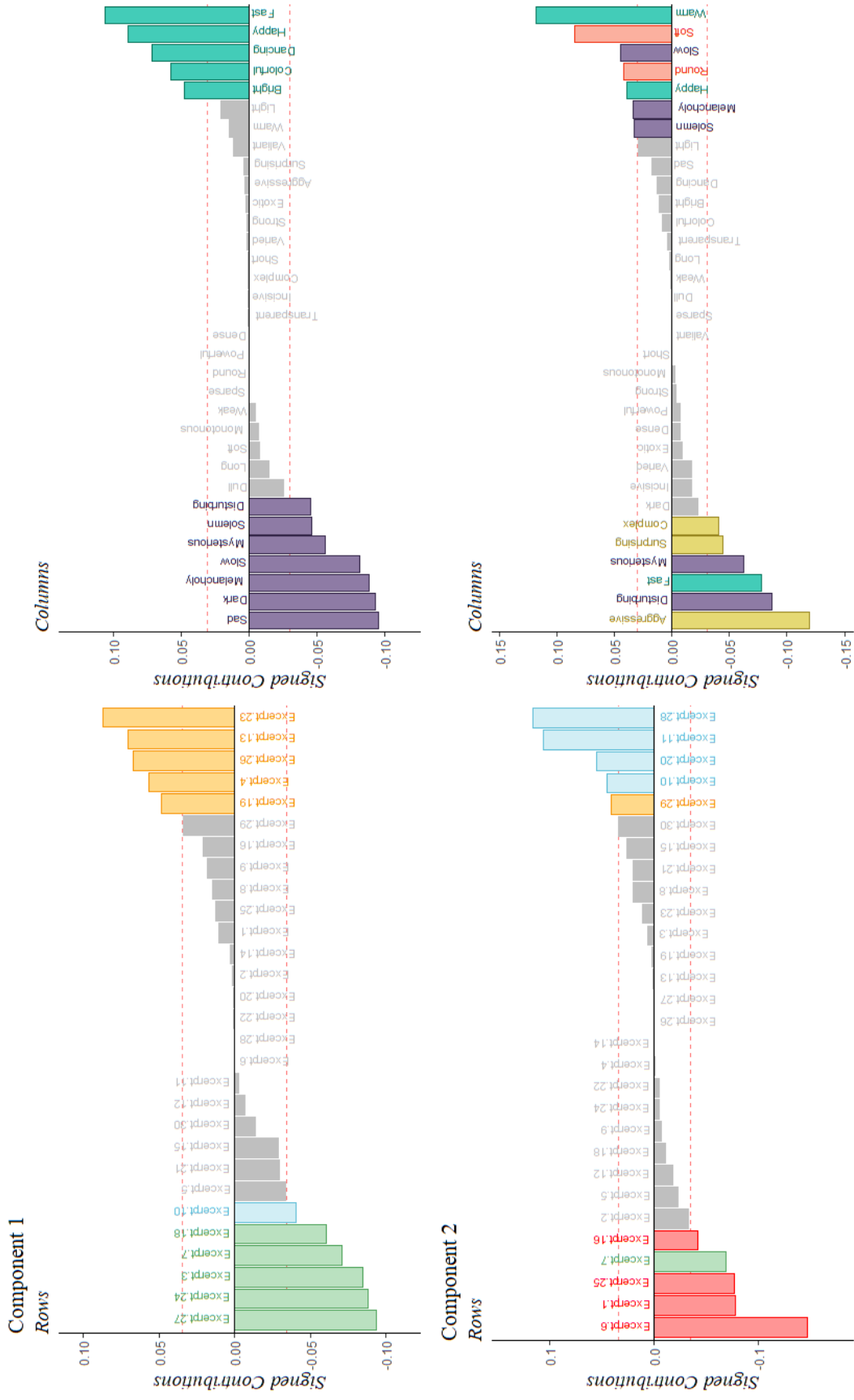
Figure 3 PLSC: loadings barplots for the columns of the surveys from Experiments 1 and 2. The loading on a dimension for a variable is the square of its contribution to that dimension.

7

List of Figures

Figure 4 Distance analysis for participants in Experiment 1, colored according to nationality (left) and gender identity (right).

Figure 4 *Note.* Axis labels indicate dimension, eigenvalue, and explained variance for that dimension.

Figure 5 Hierarchical cluster analysis for the row factor scores of the CA for Experiment 1.

Figure 6 Hierarchical cluster analysis for the row factor scores of the CA for Experiment 1 including Excerpts 6 and 14.
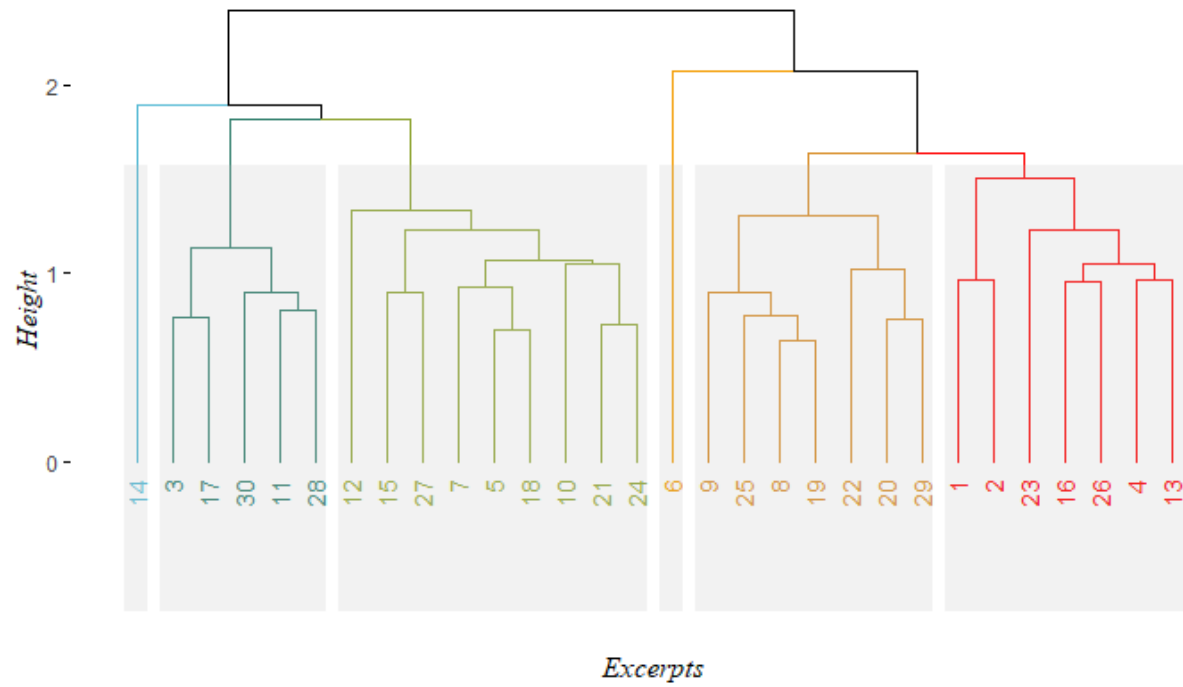
Figure 7 CA: Row factor scores for preliminary analysis of the qualities survey, featuring Dimensions 1 and 2, with tolerance intervals around the clusters identified by the HCA.
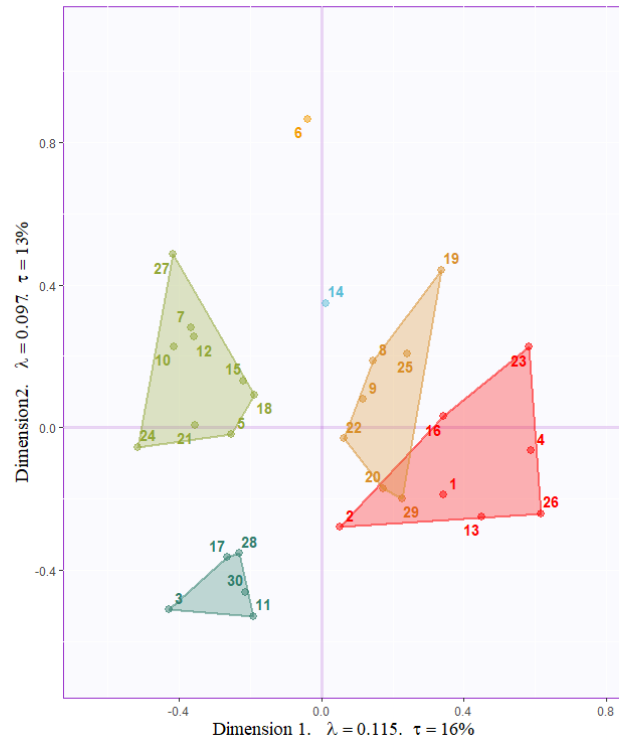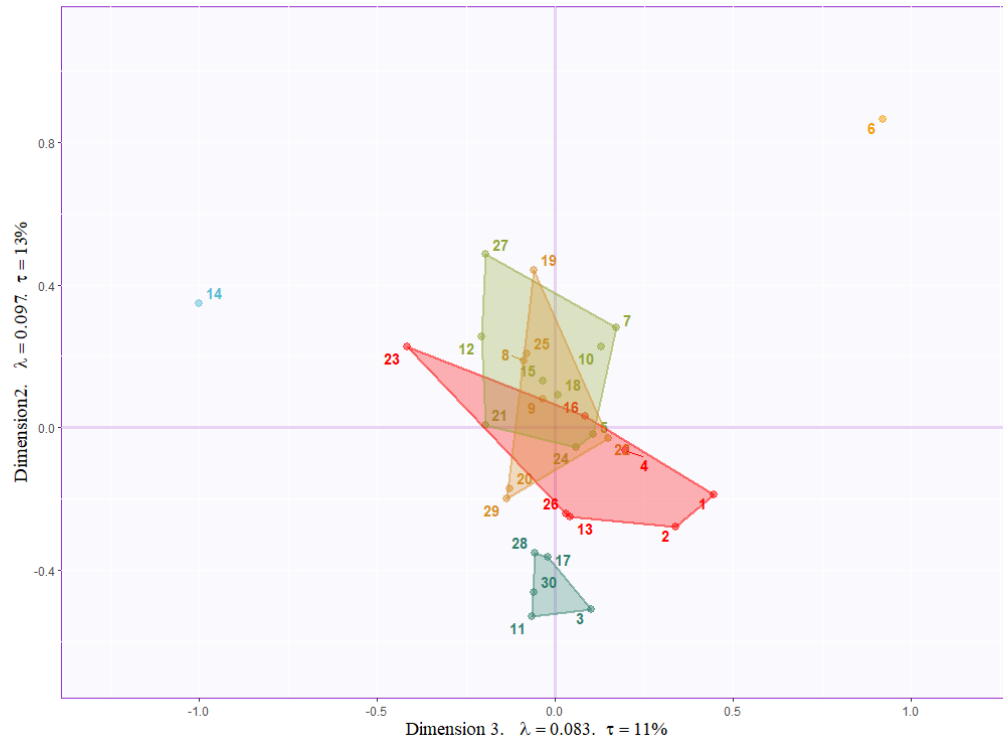

Figure 7 *Note.* Axis labels indicate dimension, eigenvalue, and explained variance for that dimension.

Figure 8 CA: Row factor scores for the preliminary analysis of the qualities survey, featuring Dimensions 2 and 3, with tolerance intervals around the clusters identified by the HCA.

Figure 8 *Note.* Axis labels indicate dimension, eigenvalue, and explained variance for that dimension.

Figure 9 CA: Column factor scores for the analysis of the qualities survey, points are levels of each variable, colored by variable.
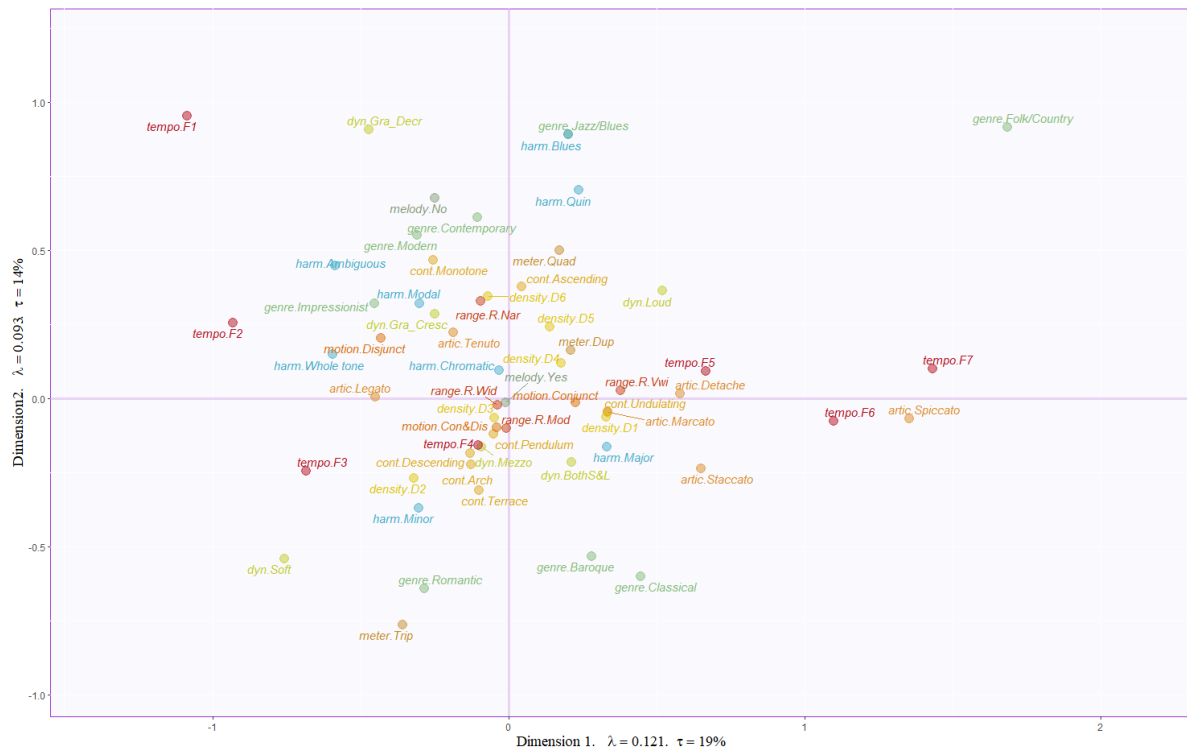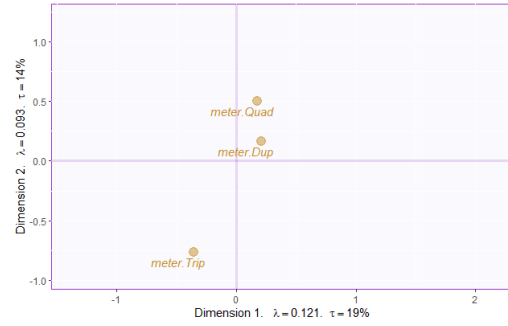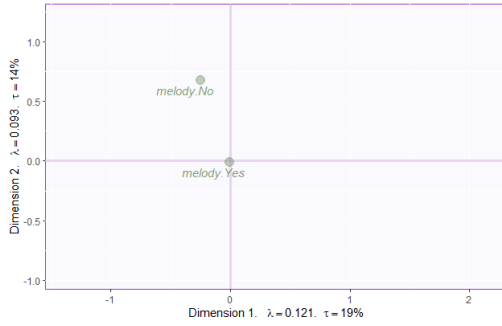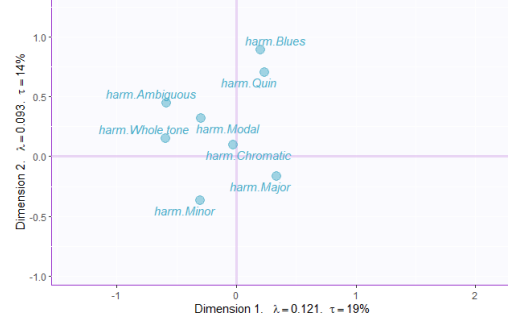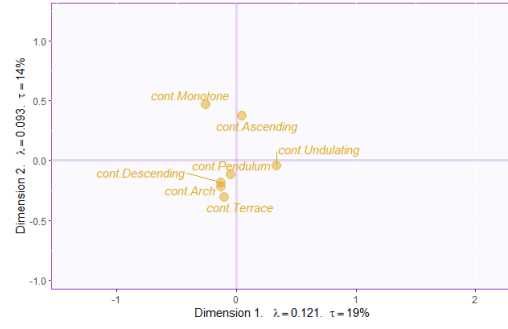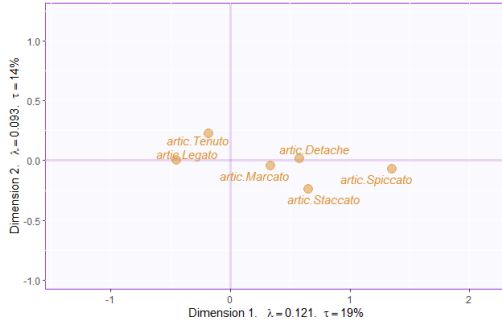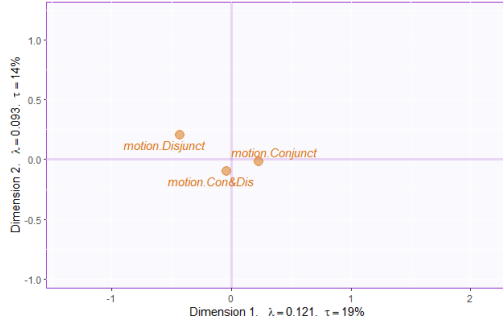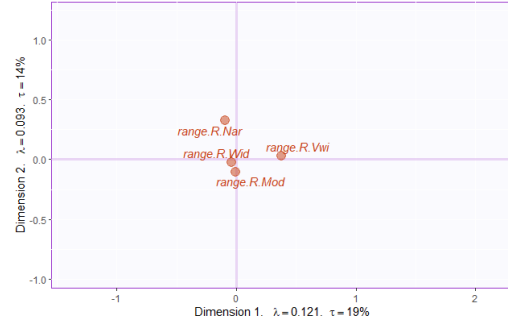

Figure 9 *Note.* Axis labels indicate dimension, eigenvalue, and explained variance for that dimension.

Figure 10 Separate plots for each of the qualities evaluated in the musical qualities survey

(a) Articulations

(b) Contour

(c) Density

(d) Dynamics

(e) Genre
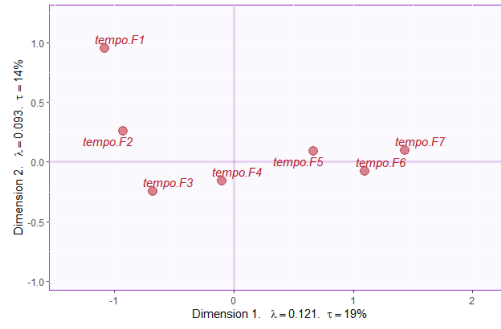
(f) Harmony

(g) Melody

(h) Meter

15
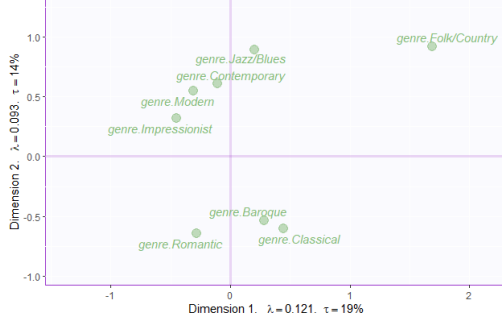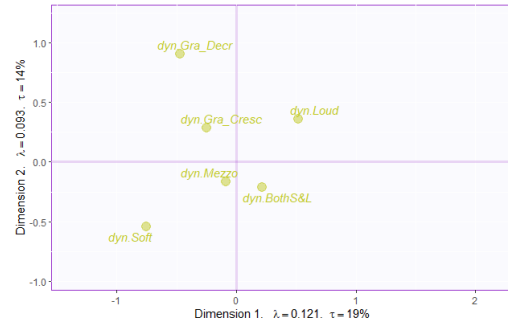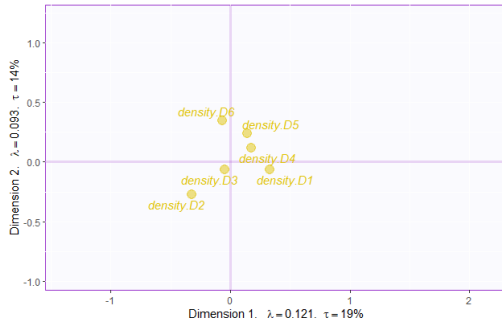
(i) Motion

(j) Range

(k) Tempo

16

Figure 11 Hierarchical cluster analysis for the row factor scores of the CA for Experiment 2.
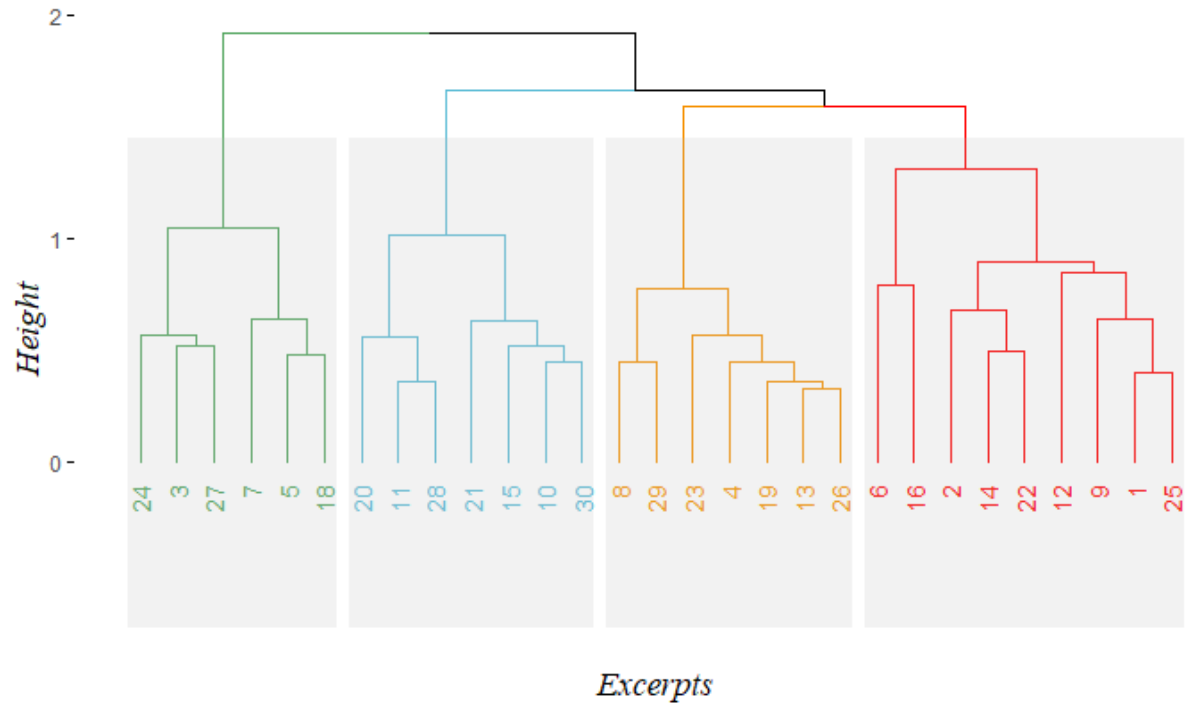
Figure 12 Hierarchical cluster analysis for the column factor scores of the CA for Experiment 2.
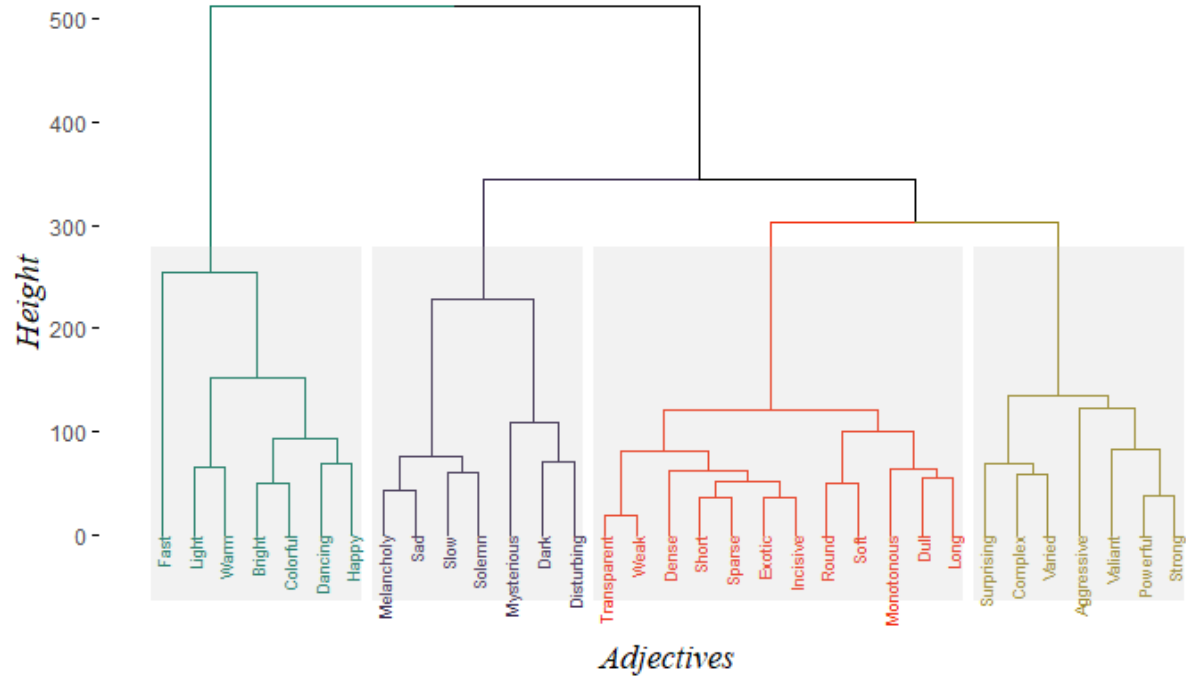
Figure 13 CA: Row and column factor scores for the first two dimensions of the CA for Experiment 2.

Figure 13 *Note.* Axis labels indicate dimension, eigenvalue, and explained variance for that dimension.

Figure 14 CA: Row and column factor scores for the first two dimensions of the CA for Experiment 2.
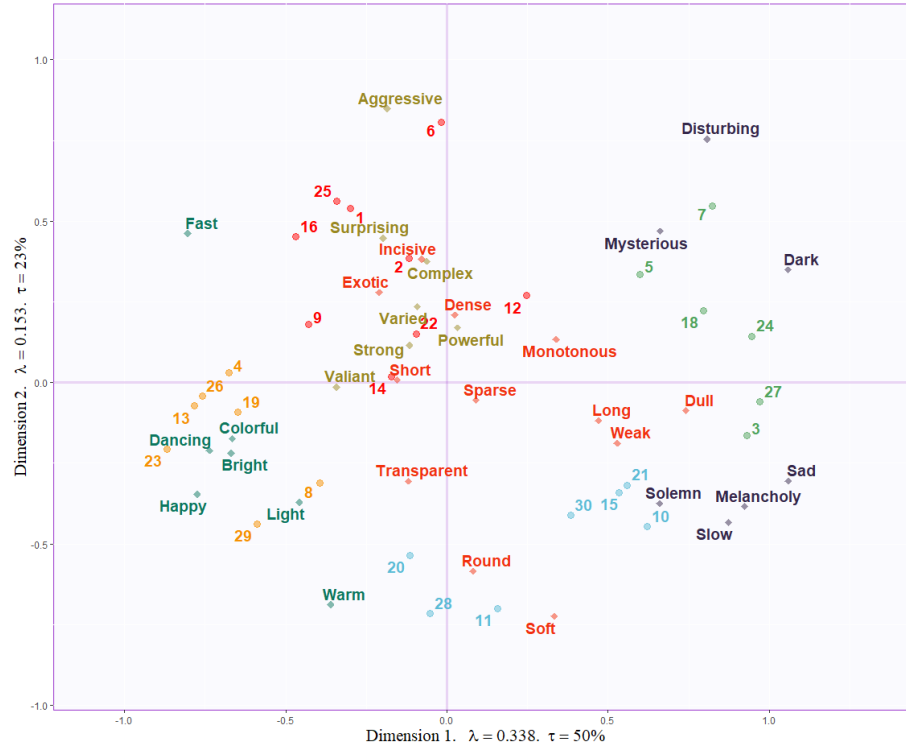

Figure 14 *Note.* Axis labels indicate dimension, eigenvalue, and explained variance for that dimension.
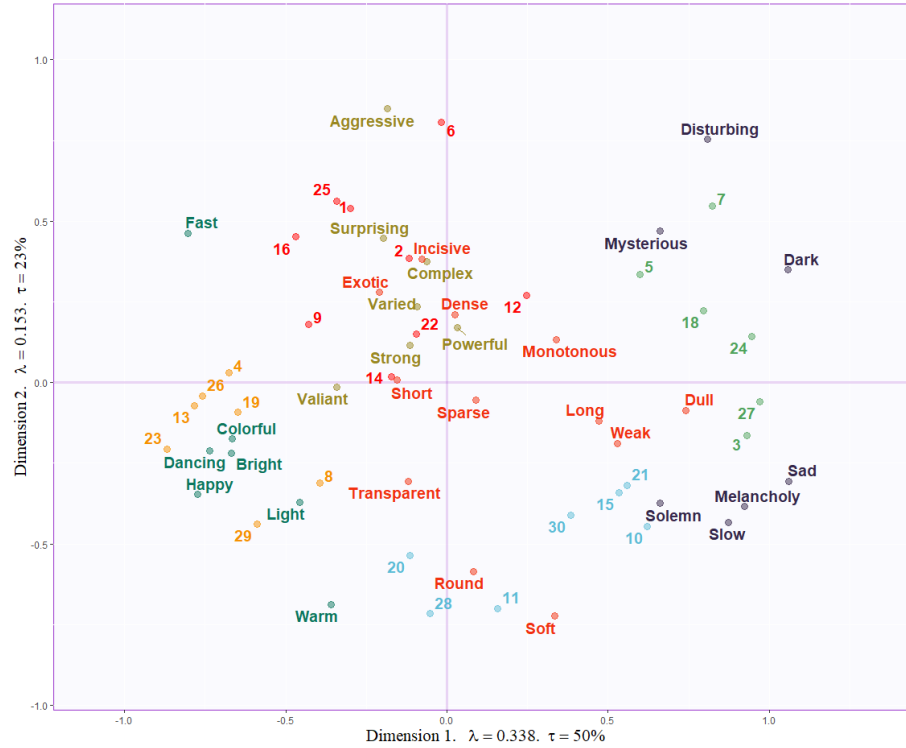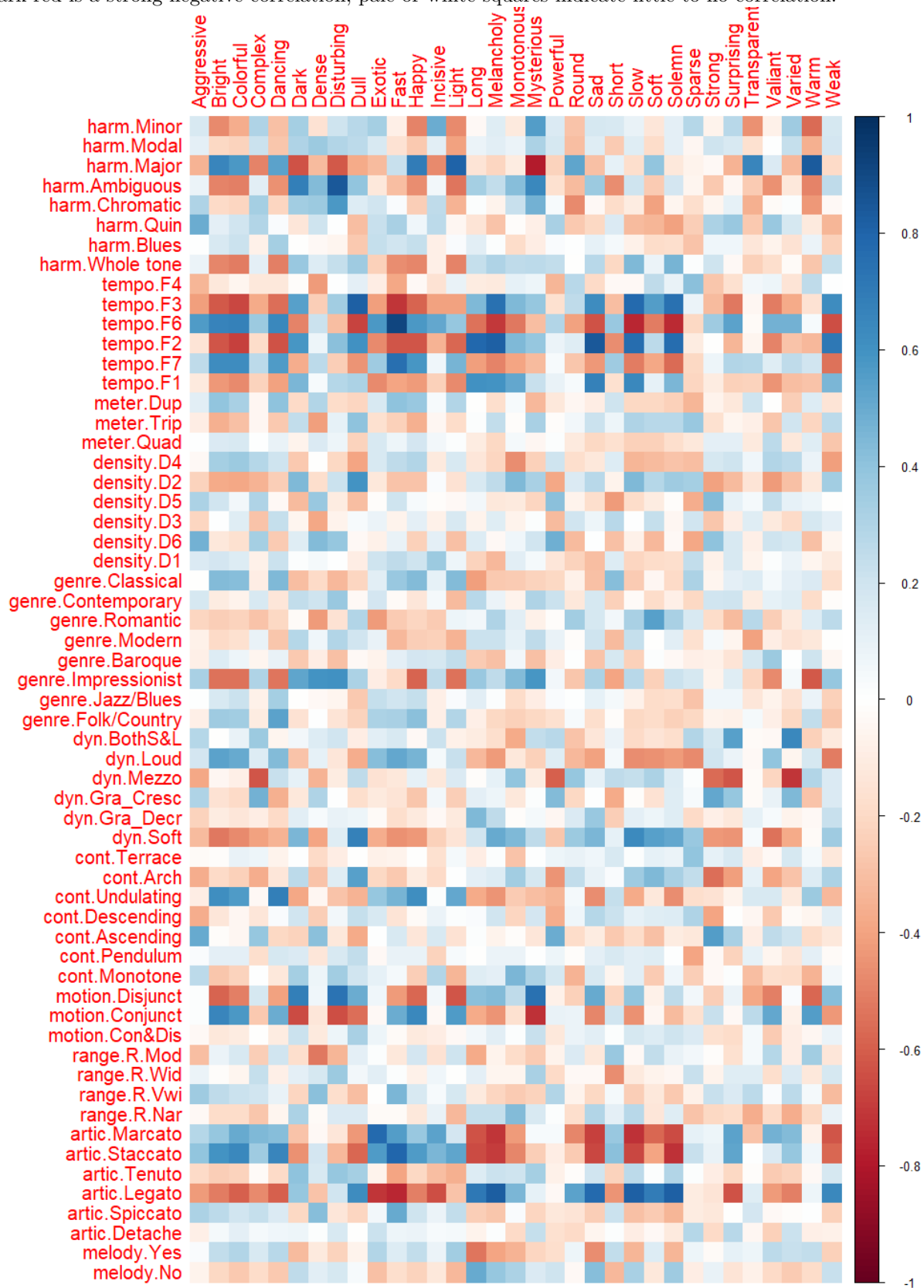
Figure 15 PLSC: Correlation matrix for the columns of the surveys from Experiments 1 and 2. Correlation values between variables are indicated by color and opacity. Dark blue is a strong positive correlation and dark red is a strong negative correlation, pale or white squares indicate little to no correlation.

List of Tables

Table 3 CATA Adjectives

English	French
Slow	Lent
Fast	Rapide
Dense	Bavard
Sparse	Epure
Complex	Complexe
Transparent	Transparent
Light	Clair
Dark	Sombre
Bright	Brillant
Dull	Terne
Soft	Doux
Strong	Fort
Mysterious	Mysterieux
Melancholy	Melancolique
Incisive	Incisif
Round	Tendre
Aggressive	Agressif
Weak	Faible
Strong	Puissant
Warm	Chaleureux
Solemn	Solennel
Valiant	Vaillant
Sad	Triste
Happy	Joyeux
Dancing	Dansant
Disturbing	Inquietant
Exotic	Exotique
Colorful	Colore
Varied	Changeant
Monotonous	Monotone
Long	Long
Short	Court
Surprising	Surprenant