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Artful terms: A study on aesthetic word usage for visual art versus film and music

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Abstract. Despite the importance of the arts in human life, psychologists still know relatively little about what characterises their experience for the recipient. The current research approaches this problem by studying people's word usage in aesthetics, with a focus on three important art forms: visual art, film, and music. The starting point was a list of 77 words known to be useful to describe aesthetic impressions of visual art (Augustin et al 2012, *Acta Psychologica* **139** 187–201). Focusing on ratings of likelihood of use, we examined to what extent word usage in aesthetic descriptions of visual art can be generalised to film and music. The results support the claim of an interplay of generality and specificity in aesthetic word usage. Terms with equal likelihood of use for all art forms included beautiful, wonderful, and terms denoting originality. Importantly, emotion-related words received higher ratings for film and music than for visual art. To our knowledge this is direct evidence that aesthetic experiences of visual art may be less affectively loaded than, for example, experiences of music. The results render important information about aesthetic word usage in the realm of the arts and may serve as a starting point to develop tailored measurement instruments for different art forms.

Keywords: aesthetic impressions, word usage, art forms, emotiveness, empirical aesthetics.

1 Introduction

Aesthetic activities in a broad sense, and the arts in particular, constitute an important part of many people's lives (McManus and Furnham 2006). Even though not offering a clear advantage at first sight, going to a museum or the opera, listening to music, or watching a film are pastimes that seem to provide reward in themselves, as many people seek them over and over again (eg, Leder et al 2004). In view of such ubiquity and importance of different kinds of art it is astonishing that we still know relatively little about the characteristics of recipients' experiences of different art forms. Such relative ignorance is rather typical of the field of empirical aesthetics, which, after first blossoming in the seminal work of Fechner (1876) and the *new experimental aesthetics* approach by Berlyne (1974), has just started to come of age in the past few years (see, eg, Chatterjee 2011). The current study aims to add to our understanding of aesthetic experiences of different art forms by exploring the impressions that they leave on the recipient.

Before we go further into this issue, some definitions are important: According to Leder et al (2004) an *aesthetic experience* comprises the entirety of cognitive and affective processes involved in an encounter with an artwork, from mere perceptual processes to measurable "outputs" in terms of an *aesthetic judgment* and an *aesthetic emotion*. As it is certainly difficult to grasp the entire experience through empirical measures (see also Leder et al 2005), we focus on *aesthetic impressions* in the following study. We define aesthetic impressions as

all cognitive and affective results of an aesthetic experience that are object-related (rather than undirected, such as a mood-state) and that can at least theoretically be verbalised into aesthetic judgments (Augustin et al 2012).

The current study asks what characterises aesthetic impressions of different art forms for the recipient. It approaches this question through people's word usage, as proposed by a series of authors (Augustin et al 2012; Istok et al 2009; Jacobsen et al 2004), following the idea that language is key to meaning (Osgood et al 1971). One certainly has to be aware that this approach is not unproblematic. For example, the relation between language and meaning is supposedly not a direct one, but moderated by further factors such as the range of terms in question or the speaker's native language (Adachi 2003) and how this language allows speakers to verbalise their experiences. In our approach we conceive of language as one window to meaning—which does not allow an undistorted view but compared to other (especially indirect) measures probably still offers relatively straightforward insights. Our study follows up on a recent paper (Augustin et al 2012), in which we analysed aesthetic word usage for a variety of visual object classes, including visual art, faces, landscapes, patterns, and several design categories. We found that aesthetic word usage in the visual domain is characterised by an interplay of generality and specificity: *Beautiful* and *ugly* obviously possess universal relevance (see also Jacobsen et al 2004), but in addition, different object classes show different patterns of word usage—each including both terms shared with some of the classes (such as *modern* for the design categories or *symmetrical* for faces, patterns, and houses) as well as terms that are specific for the particular class (such as *soothing* for landscapes or *interesting* for visual art).

In the present study we aim to find out to what extent this interplay of generality and specificity holds true within the realm of the arts. Hence, we do not concentrate on the visual domain alone, but rather employ three "classical" art forms that address different modalities (visual, auditory, and visual + auditory) and supposedly cover a wide spectrum of different likes and dislikes of many people: visual art, music, and film. In particular, we ask to what extent terms that have shown to be useful to describe aesthetic impressions of visual art can be used for impressions of film or music. Is there something like a universal language for the arts or rather specific aesthetic vocabularies based on art form? What are universal descriptors for aesthetic impressions? And what constitutes the similarities and differences in aesthetic word usage between visual art and the other two aforementioned art forms?

So far, one can only try to answer these questions indirectly, by comparing the results of studies that were conducted with different samples, different instructions, and in different languages. For example, Augustin et al (2012) found that the term *beautiful* was the most frequently listed one when people were asked which words they would use to describe their aesthetic impressions of visual art and other visual object classes. In general, the most frequently mentioned words for visual art referred to the aspects of beauty, style, colours, and to the idea of being special or original. In a previous study, Istok et al (2009) focused on words that might be used to describe the aesthetic value of a musical piece. They also found that *beautiful* was by far the most frequent reply, but in their study it was often listed together with *touching*. That seemed to be part of a general pattern of people mentioning relatively many terms related to emotions and moods, such as also *sad* or *emotional*. An attempt to compare the results by Augustin et al (2012) with those of Istok et al (2009)—as far as that is possible, given the differences in language and the different samples (Augustin et al: 178 Dutch-speaking students and members of the department of psychology versus Istok et al: 290 Finnish-speaking students from different faculties)—thus indicates that descriptors of emotions and moods are more frequent when people describe aesthetic impressions of music than when they describe aesthetic impressions of visual art. On a more abstract level,

aesthetic responses to music might be more emotional or affectively loaded than aesthetic responses to visual art. Such a notion is perfectly in line with anecdotal reports by many people, and also seems to be indirectly reflected in the empirical literature, where one finds a growing body of work on the topic of emotions in music (eg, Konecni et al 2007; Zentner et al 2008), much more than on emotions in art (eg, Kuchinke et al 2009).

To our knowledge there is no empirical data yet that allow a direct comparison of the nature of aesthetic impressions among visual art, music, and film, including the amount of emotiveness of the different art forms (for a meta-analysis on brain correlates of aesthetics in different modalities, see Brown et al 2011). Important evidence comes from studies by Baumgartner et al (2006a, 2006b), who compared emotion recognition and experience of music, highly arousing photographs from the IAPS (International Affective Picture System) database (Lang et al 2008), and the combination of pictures and music. Even though emotion recognition was more accurate following pictures only than music only, both subjective ratings and psychophysiological measures of emotion involvement (heart rate, respiration, skin conductance) were stronger for the music and music plus picture conditions than for pictures alone (Baumgartner et al 2006a). In addition, fMRI results suggested that the combination of pictures and music, but not the presentation of pictures alone, was associated with the activation of a large network involved in emotion processing (Baumgartner et al 2006b). It is important to note that the results by Baumgartner and colleagues focused on the basic emotions of happiness, sadness, and fear (Baumgartner et al 2006a) and sadness and fear (Baumgartner et al 2006b), respectively, making it unclear to what extent they hold true for aesthetic emotions, too, which are supposedly different (Scherer 2005) and very differentiated in nature (Zentner et al 2008). Whether a weaker emotiveness for the visual modality can be transferred from relatively simple pictures to a multifaceted stimulus like visual art or not demands further investigation.

The current study aims to approach the issue of possible differences in the nature of aesthetic impressions by directly comparing aesthetic word usages between different art forms, within one language and one sample of participants. This allows us to examine hypotheses like the one on emotionality systematically and to crystallise similarities and differences in aesthetic word usage up to the single word level. In contrast to the studies by Jacobsen et al (2004), Istok et al (2009), and Augustin et al (2012), we do not ask participants to freely come up with words. That method is doubtlessly very valuable if one wants to create a first body of aesthetically relevant words (see below), but its results do not only depend on the general relevance of words, but also on their fluency, ie, how quickly they come to people's mind. This can have the consequence that some words are not mentioned at all, because they are, for example, more difficult or unusual, even though they are theoretically relevant for a class, and even though people may identify them as such if they are prompted with words. In addition, one can only make direct comparisons of word usage between different object classes if a term is mentioned for all classes. Based on these considerations, the current research provided participants with a list of words. This list had been derived from the above-mentioned previous study (Augustin et al 2012), in which participants had freely named words they would use to describe aesthetic impressions of visual art. The list was thus fully empirically based, with all pros (no theoretical bias towards certain words and actual relevance and adequacy to people) and cons (range of words dependent on the sample's choices and backgrounds). In the current study, a new group of participants was asked to rate for each of these words how likely they were to use the word to describe their aesthetic impressions of visual art, music, and film, respectively. As the list of words used had been originally created for the realm of visual art, our analyses will primarily focus on comparing the word usage for visual art with those for film and music, rather than making absolute

statements about word usage for film or music or the relation of those two. This choice is based on the assumption that a list created for visual art probably misses important terms that are relevant only for film or music and thus does not allow a full picture of aesthetic impressions of film and music.

Given the nature of the word list used, we expected its general likelihood of use to be higher for visual art than for the other two classes—a result that can be expected unless the aesthetic language for the arts shows no specificity at all. Even more importantly, we aimed to compare the likelihood of use of each word, to find out what are universal descriptors of aesthetics, what are words predominantly employed for the visual arts, and for which words visual art is "beaten" by one or both of the other classes in terms of likelihood of use. We furthermore had a look at patterns of similarities between visual art and the other two art forms, and what these might imply as to the nature of the underlying aesthetic experiences. Following up on Augustin et al (2012), this research was intended as a further step towards a language of aesthetics, aiming to bring more systematics to the relatively confused field of aesthetic terminology and to improve our understanding of what makes up aesthetic experiences in different domains of art.

2.1 Participants

Participants were 103 first-year students of psychology (88 women) from the University of Leuven, with an age range of 17 to 24 years and a mean age of 18.6 years (SD = 1.1). All participants were native speakers of Dutch. They received course credit for participation. In terms of art background the sample could probably be regarded a sample of "interested laymen", who on average visited 2.0 art exhibitions a year (SD = 2.6), owned 5.1 art books (SD = 11.0), and expressed a medium interest in art (M = 3.9, SD = 1.4 on a 7-point scale from 1 = "very low" to 7 = "very high"). All participants had given written consent.

From an original group of 111 participants, eight persons had been excluded prior to data analysis, three since their mother tongue was different from Dutch, and another five due to response tendencies (pressing the same key in more than 50% of cases).

2.2 Materials

The basis of our study was a list of 77 Dutch words that can be used to describe aesthetic impressions of visual art. These words were derived from an earlier study (Augustin et al 2012) in which we had asked 178 participants to come up with words that can be used to describe aesthetic impressions of eight different object classes, including visual art. For details of the method and the results, we refer the reader to the original publication. The current study focused on the terms that the participants of the aforementioned study produced for the domain of visual art. To make the terms optimally useful for our purposes, we conducted some additional processing steps in addition to those described in Augustin et al (2012). An important reason for this was that the list of terms used in that study was also to be used in a field study with volunteers in a museum. With a view to this, it was important to choose terms that can easily be applied to judge artworks, and here adjectives seem more useful than nouns, even though a concentration on adjectives may possibly entail the loss of some relevant aspects. The following pre-processing steps were taken:

- Further decomposition of phrases into their components. For example, "beautiful colours" would be decomposed into "beautiful" and "colours".
- Where possible, verbs and nouns were turned into adjectives, to lose as little data as possible. For instance, "colours" became "coloured", and "symmetry" "symmetrical". Nouns for which we could not generate adjectives, because meaning changed or the adjectives are rarely or never used in everyday speech (eg, "sculpture", "portrait", or "patterns") were dropped.

From the resulting set we chose all terms that had been mentioned by at least two persons, which yielded 103 different terms. With a view to the abovementioned field study to be conducted in a museum, this number still seemed too extensive, especially if one counts on people's voluntary participation. Consequently, we further reduced the set of terms to reach a number similar to that used in comparable field studies in the arts (eg, Zentner et al 2008). This was done by asking three native speakers of Dutch to look for words that were very close in meaning and could possibly be collapsed. The judges worked independently from each other. Terms were presented in a list in alphabetical order. In those cases where at least two of the judges agreed which terms could be collapsed, we chose the solution they proposed. Within each group of collapsed terms, the term with the highest frequency in the data of Augustin et al (2012) was chosen for the final list. If frequencies were the same, we based the selection of the most representative word on the judges' opinions. The reached solution was discussed by two of the authors (MDA and JW) to recheck that the final list avoided doubles but still was well differentiated. In a few cases, groups of words were further split up into two—for example, "interesting, fascinating, thrilling, intriguing" was split up into "interesting + engaging" (= *interesting*) and "fascinating + intriguing" (= *fascinating*), because the two subgroups signify very different intensities of experience.

2.3 Procedure

The study was an online study programmed in Java. The participants took part in the framework of supervised test sessions in a computer room of the KU Leuven. After filling in general information about their age, gender, native language, and field of study, the participants received the following instruction (translated from Dutch):

> In this study we are interested in your language use: Which terms do you use often, which terms do you use rarely and how is that related to the situation? We are most interested in your language use with respect to aesthetics. Which words would you use to describe your aesthetic impressions? We will thus present you three times with an object category, together with a list of words. Please concentrate on the object category and rate each word on the list with respect to the question: Would you use this word to describe your aesthetic impressions of objects of the particular class?

The participants were asked to give their rating on a 7-point Likert scale from 1 (*very unlikely*) to 7 (*very likely*). Ratings for visual art, music, and film were conducted in separate blocks. The order of the blocks was randomised, as was the order of the list of terms within each block. In the instructions for each block we stressed the fact that it was not about what the participants think about particular films, music, or artworks, but about which terms they would use when they talk about film, music, or art, respectively.

After the three rating blocks, the participants were asked three questions related to their background and interest in art, which have proven useful in previous studies (Augustin et al 2012; Leder and Carbon 2005): how many art exhibitions they visited a year; how many art books they owned; and how strong they regarded their interest in art to be, on a 7-point scale from 1 (*very low*) to 7 (*very high*). Overall, the study took about 20 minutes.

3 Results

The mean ratings of likelihood of use across all words were 4.79 ($SD = .93$) for visual art, 4.44 ($SD = .91$) for film, and 4.21 ($SD = .86$) for music, all lying above the value 4, the theoretical midpoint on the scale 1 (*very unlikely*) to 7 (*very likely*). We suppose that terms with means below this value are relatively unlikely to be used, while terms with means above this value have a relatively high likelihood of use. A repeated measures Analysis of Variance (ANOVA) with *art form* as within-subjects factor yielded a main effect of *art form*, $F_{1,\,102} = 36.49$, $\eta_p^2 = .264$. According to tests of simple main effects, all three values differed significantly from

each other, with p-values < .001. These data suggest that the terms used in this study were generally suitable to describe aesthetic impressions of all three art forms, but most suitable for visual art, and still more suitable for film than for music. Figure 1 shows the mean ratings of likelihood per art form, for each of the 77 terms separately. For ease of orientation, we added a vertical black line in the figure at the theoretical midpoint of the scale, the value 4.

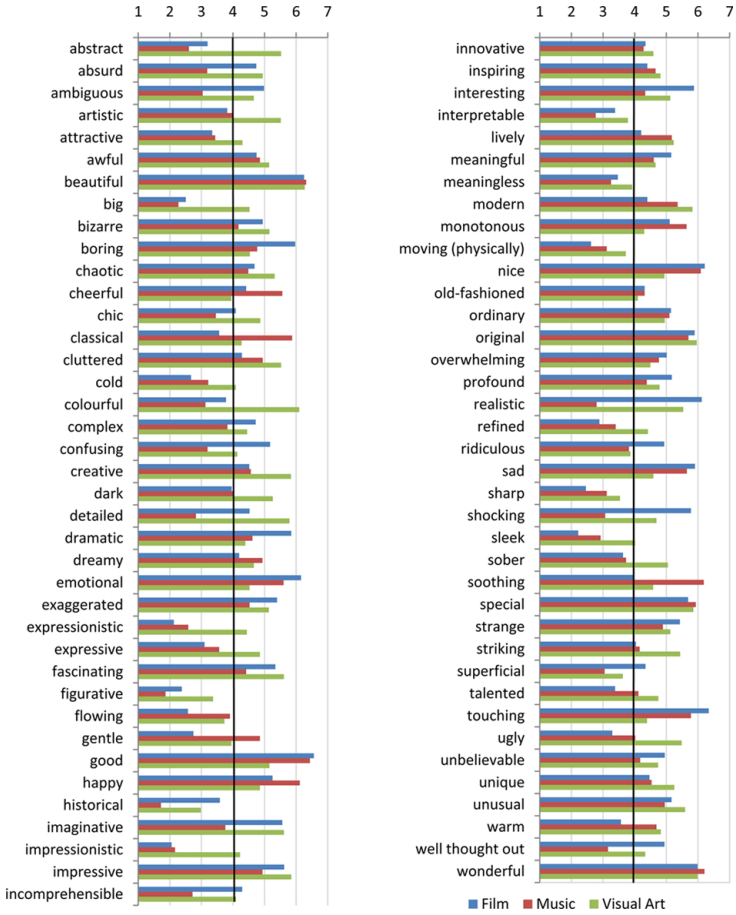


Figure 1. Mean likelihood of use of each of the 77 terms (translations of the original Dutch terms) for the three art forms, visual art, music and film. The black line marks the value 4, the midpoint of the 7-point scale used (1 = *very unlikely* to 7 = *very likely*).

To statistically compare the values for each term between the art forms, we conducted repeated measures ANOVAs on the likelihood-of-use ratings for each term, with *art form* as within-subjects factor (for most important results see Table 1). Seven of the terms, *figurative*, *historical*, *interpretable*, *meaningless*, *sharp*, *moving* (in the physical sense), and *flowing* lay below this value for all three art forms. Following the logic explained above, we interpret this as a general lack of relevance of these terms, and thus dropped them from further analyses, to continue with a reduced set of 70, which are all likely to be used for at least one of the art forms.

Inspection of Figure 1 suggests that the terms *beautiful*, *wonderful*, *original*, and *special* are very important for all three art forms, while for terms like *detailed*, *colourful*, *abstract*, or *expressive* there seem to be relatively strong differences between the classes. An important observation with respect to the current literature on aesthetics is the likelihood of use of the term *beautiful* as compared to other terms: In the case of visual art, *beautiful* theoretically obtained highest likelihood ratings, but did not differ significantly from the second and third

Table 1. Overview of the most important results of the ANOVAs comparing the likelihood of use of each term between the three art forms (Bonferroni-adjusted α-level $p = 0.05/70 = 0.0007143$). Bold face stands for art form-specific words, which obtain ratings of relatively high likelihood (values above 4) only for one of the art forms. Within each column words are ordered according to their likelihood for visual art (highest to lowest). Abbreviations: VA = Visual Art, F = Film, M = Music.

All equal	**Visual Art highest**		**Visual Art among highest**		**Visual Art < Music & Film**		**Visual Art < Music**		**Visual Art < Film**		**Other effect**
VA = F = M	VA > F > M	VA > F = M	VA = M > F	VA = F > M	F > M > VA	F = M > VA	M > VA = F	M > VA > F	F > VA = M	F > VA > M	
beautiful	detailed	**colourful**	modern	imaginative	emotional	good	happy	gentle	boring	interesting	impressive
wonderful		creative	lively	fascinating	touching	nice	soothing		dramatic	shocking	cluttered
original		**abstract**	**warm**	**realistic**		sad	classical		**ridiculous**	confusing	chaotic
special		artistic	attractive	bizarre		monotonous	cheerful				exaggerated
unusual		ugly		**absurd**							profound
awful		striking		**ambiguous**							talented
strange		dark		**well thought out**							complex
ordinary		unique		**incomprehensible**							superficial
inspiring		**sober**									
unbelievable		chic									
meaningful		**expressive**									
dreamy		**big**									
innovative		**expressionistic**									
overwhelming		**refined**									
old-fashioned		**impressionistic**									
		cold									
		sleek									

most likely terms for visual art, *colourful* and *wonderful*, $F_{2,\,204} = 2.27$, *ns*. For both music and film, *good* even reached higher values than *beautiful*. In the case of film, this difference was significant, as shown by a within-subjects ANOVA for the three most likely terms for film, *good*, *touching*, and *beautiful*, $F_{2,204} = 3.43$, $p = .034$, $\eta_p^2 = .033$, p-value of significant simple main effect <.01.

Since there were 70 separate analyses, the alpha level was adjusted according to Bonferroni to $p = .05/70 = .000714$. F-values for the significant ANOVAs ranged between 7.85 and 131.62. Terms that are equally likely to be used for all art forms include, on the one hand, terms like *beautiful*, *wonderful*, and *awful*, and on the other hand, *meaningful* and *dreamy*, and finally, terms related to the idea of being special, like *original, special*, *ordinary*, and *innovative*. Specificity of a term for an art form can theoretically come in different shapes: clear specificity, (ie, highest values for that particular art form and low likelihood of use of the term for any of the other art forms) or more in the sense of a tendency towards that art form (ie, highest likelihood of use for the art form but also still relatively strong likelihood of use of the term for at least one of the other two art forms). To be able to make a distinction between these two different forms of specificity, we again used the value 4 as cut-off criterion between unlikely (values below 4) and likely terms (values above 4).

With respect to visual art, it is specific terms related to outer appearance and depiction, like *colourful*, *abstract*, or *big*, as well as style-terms like *expressionist* and *impressionist*, but also the term *expressive* that are clearly art specific. A visual art tendency can be found for the term *ugly*, as well as for some terms related to creativity and uniqueness, like *creative*, *artistic*, *striking*, and *unique*. In contrast, we found that several emotion-related terms have a film and music tendency (significantly higher values for both film and music than for visual art) or a music tendency (significantly higher values for music than for visual art and film), even though their likelihood of use for visual art is still relatively high. This applied to *emotional*, *touching*, *sad*, and *happy*, respectively, of which *emotional* and *touching* were actually more likely for film than for music. With the exception of the term *happy*, music alone obtained higher likelihood ratings than did visual art and film for *classical* on the one hand and some mood-related words on the other hand, *restful*, *cheerful*, while words with a film tendency related to plot, tension, and interestingness, such as *dramatic*, *boring*, *interesting*, or *shocking*. There was one term that was film-specific, the term *ridiculous*.

We approached the issue of differences between the art forms also in a different manner, by conducting correspondence analysis (CA). CA allows one to plot objects (in our case: art forms) and attributes (in our case: terms) in a common space to find underlying dimensions and compare profiles. The reason why we did not choose Discriminant Analysis to differentiate between the groups was that the relation between sample size and number of variables was clearly smaller than suggested in the literature (1.47 in our case compared to the minimum value of 2.0 suggested by Backhaus et al 2003). Furthermore, even though CA entails a loss of data level in our case (see below), it allows to span general dimensions according to which the differences between groups can be described.

To be able to point out differences in the profiles of relevant aesthetic terms between the art forms, we went for an asymmetrical, column-principal solution, with art forms in the rows and terms in the columns (see Backhaus et al 2003). Since CA relies on nominal data, our rating data were transformed to categories by counting each case where an art form received a rating higher than 4 on a certain term as a classification of that art form under that term. For example, if a person assigned a value of 5 to *impressive* for visual art and of 3 to music, visual art would be counted as classified in the category *impressive*, while music would not. A comparison of the CA solution with the ANOVA results shows that the former supports and clearly crystallises the latter (see Figure 2). Since there were only three objects,

the two dimensions found explain 100% of the data. Column 3 and 4 of Table 2 contain the contributions of each term and art form to the two dimensions. Figure 2 visually illustrates the CA solution. Dimension 1, which accounts for 55.9% of the data, is dominated by visual art and contrasts it to music (25.8%) and film (11.6%). As to terms, the dimension is mostly characterised by *abstract*, *expressionistic*, *impressionistic*, *colourful*, and *big*. Highest loadings on the other side of the dimension can be found for *cheerful*, *touching*, and *emotional*. To summarise, one could say that it is *outer appearance versus emotion* that differentiates aesthetic word usage for visual art from that for both film and music. Dimension 2 accounts for 44.1% of the data and differentiates film (55.3%) from music (43.6%). The terms with high loadings on this dimension are *gentle, classical*, and *soothing*, on the one hand (closer to music), and *realistic*, *shocking*, *confusing*, *well though-out*, and *ambiguous* on the other hand (closer to film). So what seems to contrast music from film in our data could be summarised as *mood and style* versus *content*.

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Table 2. Relative contributions of each attribute and art form to the two dimensions of the correspondence analysis solution (columns 3 and 4). Column 1 contains the code for each term that is used in Figure 2. The numbers in columns 5 and 6 are the intercorrelations between visual art and the other two art forms, also named *coherence scores*.

Code	**Term/Art Form**	**Contributions to Dimensions in CA**		**Intercorrelations/Coherence Scores**	
		Dimension 1	Dimension 2	Visual Art — Film	Visual Art — Music
	FILM	.116	.553		
	MUSIC	.258	.436		
	VISUAL ART	.626	.011		
1	abstract	.093	.000	.295	.002
2	absurd	.011	.026	.452	.327
3	ambiguous	.004	.042	.353	.324
4	artistic	.017	.003	.366	.354
5	attractive	.010	.006	.308	.207
6	awful	.001	.001	.369	.238
7	beautiful	.002	.001	.528	.372
8	big	.066	.002	.289	.230
9	bizarre	.001	.004	.507	.354
10	boring	.015	.012	.168	.263
11	chaotic	.000	.000	.408	.425
12	cheerful	.040	.022	.378	.201
13	chic	.006	.002	.520	.478
14	classical	.014	.060	.368	.318
15	cluttered	.003	.006	.136	.348
16	cold	.011	.015	.255	.272
17	colourful	.069	.000	.186	−.061
18	complex	.000	.010	.368	.323
19	confusing	.001	.055	.333	.117
20	creative	.010	.002	.329	.299

Continued on next page

Table 2 (continued from previous page).

Code	Term/Art Form	Contributions to Dimensions in CA		Intercorrelations/Coherence Scores	
		Dimension 1	Dimension 2	Visual Art — Film	Visual Art — Music
21	dark	.008	.001	.317	.077
22	detailed	.038	.022	.439	.072
23	dramatic	.020	.011	.216	.387
24	dreamy	.004	.015	.467	.373
25	emotional	.034	.002	.196	.256
26	exaggerated	.000	.005	.301	.321
27	expressionistic	.071	.012	.235	.410
28	expressive	.018	.012	.270	.233
29	fascinating	.002	.009	.426	.165
30	gentle	.002	.095	.195	.162
31	good	.027	.000	.168	.295
32	happy	.023	.008	.402	.312
33	imaginative	.004	.023	.388	.171
34	impressionistic	.071	.005	.365	.322
35	impressive	.001	.001	.408	.180
36	incomprehensible	.003	.025	.246	.373
37	innovative	.000	.000	.493	.426
38	inspiring	.003	.003	.367	.310
39	interesting	.001	.009	.277	.325
40	lively	.000	.020	.447	.382
41	meaningful	.003	.002	.324	.266
42	modern	.000	.018	.428	.262
43	monotonous	.027	.002	.230	.194
44	nice	.024	.000	.411	.441
45	old-fashioned	.008	.000	.205	.412
46	ordinary	.004	.000	.528	.580
47	original	.001	.001	.344	.062
48	overwhelming	.008	.000	.261	.224
49	profound	.001	.004	.357	.415
50	realistic	.013	.093	.238	.142
51	refined	.022	.014	.319	.426
52	ridiculous	.010	.016	.519	.444
53	sad	.029	.000	.157	.172
54	shocking	.000	.091	.232	.205
55	sleek	.027	.023	.181	.362
56	sober	.019	.008	.221	.337
57	soothing	.014	.053	.366	.062
58	special	.004	.000	.185	.428
59	strange	.003	.001	.518	.291
60	striking	.011	.002	.281	.044
61	superficial	.002	.029	.195	.252
62	talented	.005	.010	.361	.434
63	touching	.039	.001	.205	.063
64	ugly	.017	.015	.209	.299
65	unbelievable	.001	.003	.454	.323

Continued on next page

Table 2 (continued from previous page).

Code	Term/Art Form	Contributions to Dimensions in CA		Intercorrelations/Coherence Scores	
		Dimension 1	Dimension 2	Visual Art — Film	Visual Art — Music
66	unique	.003	.001	.372	.432
67	unusual	.000	.000	.359	.411
68	warm	.000	.022	.247	.275
69	well thought out	.000	.043	.333	.292
70	wonderful	.004	.002	.297	.354

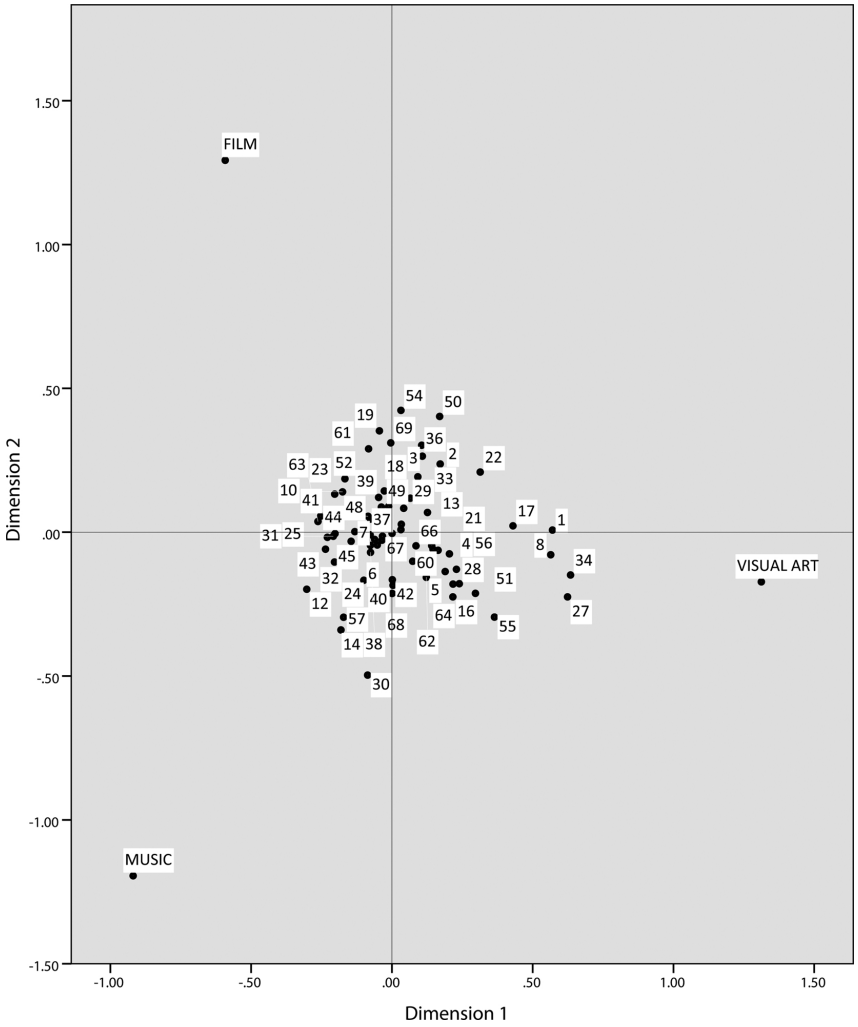


Figure 2. Plot of the correspondence analysis (CA) solution, with art forms and terms plotted in the same space. Note that we chose an asymmetrical column-principal-solution, which visually exaggerates the differences between the art forms.

The preceding results primarily focused on differences in likelihood of use between the three art forms studied, both over all terms and on single-term level. In the following, we go further into the issue of similarities, focussing on the amount of coherence in likelihood ratings over terms and persons. Pearson's product-moment coefficients between the rating patterns over terms (n = 70) for each combination of art forms were $r = .31$ ($p < .05$) between art and film, $r = .24$ ($p < .05$) between art and music, and $r = .55$ ($p < .001$) between

film and music. A repeated measures ANOVA with the Fisher-Z-transformed values of the correlations per term as dependent variable showed all three correlations to differ significantly from each other, $F_{2,\,138} = 357.65$, $p < .001$, $\eta_p^2 = .838$.

Next, we asked the question: What are the terms that make up the core of the similarities of aesthetic word usage for visual art with film and music, respectively? The idea of this analysis was to find groups of terms for which rating behaviour between visual art and music and visual art and film, respectively, was most coherent over persons. Starting points were Pearson's correlations across persons between the rating patterns for each of the 70 terms, calculated separately for the combinations visual art and music as well as visual art and film. The values can be found in columns 5 and 6 of Table 2. We will refer to these correlations as *coherence scores* in the following. The coherence scores were backward-ordered according to size (see x-axes of Figures 3a and 3b).

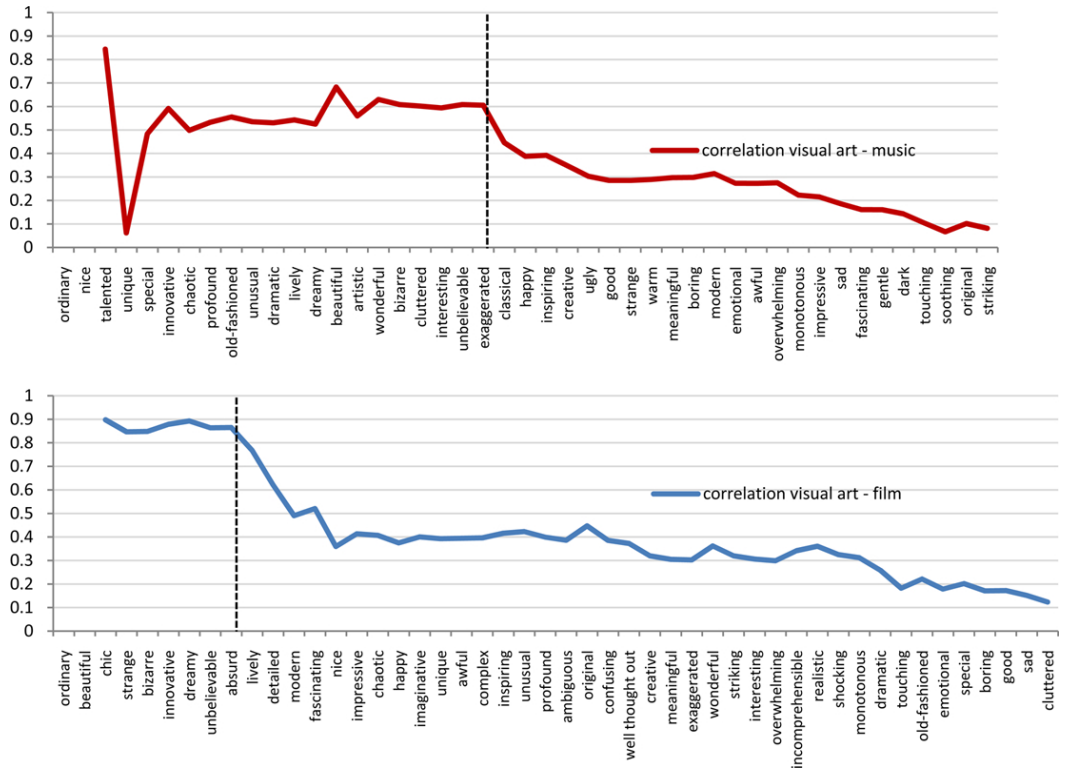


Figure 3. Illustration of the core of similarities in aesthetic word usage between visual art and the other two art forms, (a) music and (b) film. Terms are ordered from left to right according to the amount of coherence (correlation over persons for that particular term) with visual art. The lines show the correlations between the means for visual art and music (red) and visual art and film (blue), calculated *peu à peu* starting from the three terms with the highest coherence. Dashed lines mark the dominant breaks in the correlations.

As we were interested in terms that play an important role in similarities, we included only those terms that had a mean rating of at least 4 (theoretical midpoint on our scale from *very unlikely* to *very likely*) for both art forms involved and could thus be considered to be rather likely to be used for both. The order of terms based on the coherence scores was then used to subsequently produce correlations between the mean ratings of terms between the two respective classes, starting from the three terms with the highest inter-art form coherence and subsequently adding terms according to their coherence score. Figure 3a–b graphically illustrates the order of the terms (x-axes) and the resulting correlation patterns.

So, for example, for the combination art and music we would start by correlating the means for *ordinary*, *nice*, and *talented* and then subsequently add *unique*, then *special,* and so forth. Of particular interest were possible breaks in these patterns: From which term on does the correlation between the art forms decline rapidly? Similarly to the logic of Cattell's Scree plot, the terms appearing before the break were considered as constituting the core of similarities in aesthetic word usage between the two respective classes. As can be seen, the most dominant break in the correlation pattern between art and music (apart from a large drop between *talented* and *unique*, which is difficult to interpret due to the very small number of values in the correlation) happens after *exaggerated*. If we try to summarise the general pattern, the similarity-relevant terms include beauty-related terms like *beautiful*, *nice,* and *wonderful*, the terms *dreamy* and *lively*, a relatively large number of terms related to originality or uniqueness (eg, *ordinary*, *special*, and *unique*), a few terms linked to comprehensibility (eg, *bizarre* and *chaotic*) and terms that seem to be related to profoundness (*profound*, *dramatic*). As to the similarities between art and film, a strong break in the correlation pattern can be found behind *absurd*. Therefore, the terms most important for the similarities between visual art and film seem to be *beautiful*, *dreamy*, and *chic*, the two originality-related terms *ordinary* and *innovative* and several terms related to comprehensibility, *bizarre*, *strange*, *unbelievable*, and *absurd*.

4 Discussion

The current study focused on aesthetic word usage for three different art forms that make an important part of many people's lives—visual art, film, and music (eg, McManus and Furnham 2006). How likely is it that people use certain terms to describe their aesthetic impressions of visual art, film, and music, respectively? Knowledge of this issue is supposed to provide important insights into the nature of aesthetic experiences of the three art forms and to render useful information for the development of possible measurement scales. Following up on a study by Augustin et al (Augustin et al 2012), in which participants freely named aesthetic descriptors for eight different visual object classes, we could draw upon a list of words which can generally be assumed to be useful to describe aesthetic impressions of visual art. In the present research we tested a different sample of participants to find out with which likelihood each of these words is used to describe aesthetic impressions of visual art and to what extent such a pattern of aesthetic word usage can be transferred to two other art forms, namely film and music.

First of all, our analyses show that the 77 terms used in this study were most likely to be used to describe aesthetic impressions of visual art, and least likely to be used for music. On the one hand, this validates the findings of our previous study through a different method (likelihood-of-use ratings rather than free naming of terms) and for a new sample of participants: a list of terms that has specifically been generated for visual art should also under different circumstances be more likely to be used for visual art than for other classes. On the other hand, differences in the mean likelihood of use for the three art forms suggest that there is no such thing as a universal aesthetic language for the arts, but that aesthetic word usage for different art forms is rather characterised by a substantial degree of specificity per art form. More precisely, we find that the interplay of generality and specificity that we identified for aesthetic word usage for different visual object classes (Augustin et al 2012) also applies to the realm of the arts: General aesthetic terms that are equally important for all three art forms examined here can be found alongside terms whose likelihood of use clearly differs between the art forms.

An important observation in light of the literature on aesthetic word usage is the difference in roles of the terms *beautiful* and *ugly*: Jacobsen et al (2004) claimed a *primacy*

of beauty and supposed that *beautiful* and *ugly* span the central dimension of the aesthetics of objects. Also, in our recent study on different visual object classes (Augustin et al 2012) we found that those two terms were mentioned frequently for all object classes studied, even though *ugly* was mentioned far less often than was *beautiful*. In the present study, *beautiful* can indeed be found among the general aesthetic terms, but for none of the art forms do the data speak for a primacy of beauty in terms of an absolutely highest likelihood of use. Furthermore, *ugly* turns out to be of much less general relevance, being significantly more likely to be used to describe aesthetic impressions of visual art than of film or music and being even relatively unlikely for film ($M = 3.29$). Whether this reflects *ugly* being an aesthetic term reserved for static visual stimuli in general (in contrast to dynamic visual or auditory stimuli) or whether the just-described result is based on more subtle differences between visual art, film, and music remains to be investigated by future research.

Coming back to general aesthetic terms, these include—apart from *beautiful, wonderful*, and *awful*—*dreamy,* as well as a relatively wide range of terms related to the idea of being special or innovative, like *original*, *special*, *ordinary,* or *innovative*. The relevance of dreamy was already pointed out by Zentner et al (2008) with respect to descriptors of emotions in music. According to their view, a term like *dreamy* could denote the ability of the arts to make people "self-forgetful and somewhat detached from every day concerns" (p 513). The high general likelihood of use of terms related to the idea of being special provides evidence that originality is an aesthetic facet with an important role for aesthetic experiences of all three art forms. This fits in with the view by Markovic (2012; Stevanov et al 2012), according to whom fascination, rather than pleasure or liking, is a core aspect of aesthetic experience.

Which words are particularly likely to be used for visual art, more so than for music or film? First of all, there is the above-mentioned word *ugly*. Second, there is quite a large number of terms related to outer appearance or the depiction of content, like *colourful*, *abstract*, *dark*, or *big*, most of which (apart from *dark*) seem to be visual art-specific (ie, relatively unlikely for the other two art forms). This also includes stylistic labels like *impressionistic* or *expressionistic*. In a way it seems logical that terms related to outer appearance received the highest ratings for visual art, but cases such as *colourful* and *dark* are not quite so obvious. At least the term *colourful* is relatively widespread when talking about music (eg, Istok et al 2009), and the association between colours and music has a long tradition, playing an important role in phenomena of synaesthesia (Jewanski et al 2009; Ward et al 2006) as well as in some artistic conceptions like those of Wassily Kandinsky (Kandinsky 1994).

Two other interesting observations: The term *expressive* seems to be art-specific, and some terms related to uniqueness, like *striking*, *creative*, and *unique* also received their highest values for visual art. In contrast to the general aesthetic terms *special*, *innovative*, or *original*, these terms thus may code aspects of being special or unique that are specific to visual art.

We now turn to those aesthetic terms for which visual art is "beaten" in likelihood of use by film and/or music. Highest likelihood for film is obtained for a number of words related to plot, tension, and interestingness, like *boring*, *dramatic,* or *shocking*. A music tendency can be found for several words related to style (*classical*) and to mood. As for the latter aspect, the terms might denote some of the musical emotions identified by Zentner et al (2008), for example, *gentle* (for Zentner et al: *tenderness*), *cheerful* (for Zentner et al: *joyful activation*), and *soothing* (for Zentner et al: *peacefulness*).

Yet, the most central observation in the data seems to be that several emotion-related words, such as *emotional*, *touching*, *happy*, and *sad*,obtained relatively high ratings for visual art, and thus obviously do play an important role in our experience of visual art (see

also Di Dio et al 2007), but are still less likely to be used to describe aesthetic impressions of visual art than to describe impressions of film or music or both. *Emotional* and *touching* actually received even higher likelihood ratings for film than for music, while for the terms *happy* and *sad*, which are assumed to refer to discrete emotions (Ekman 1992) instead of general emotiveness, this was not the case. To our knowledge, this is the first direct empirical evidence, following indirect evidence based on comparing, for example, the results by Istok et al (2009) and Augustin et al (2012), that aesthetic encounters of music and of film might on average be experienced as more emotional than encounters with visual art. This finding fits in with the results that Baumgartner et al report for non-artistic pictures from the IAPS database (2006a), namely that psychophysiological measures and emotional involvement ratings were much stronger in reaction to music or to pictures plus music than for pictures alone. Interestingly, the observation that visual art is less emotive than film or music is also mentioned often in anecdotal reports, when people with a general interest in aesthetics summarise their experiences of artworks.

What could be possible reasons? As for film, its power to elicit emotions seems quite evident, since most films present fictional situations in which the characters on screen experience all different kinds of emotions. There are relatively clear-cut genres, comedy, tragedy, thriller, etc, for viewers to choose a priori among different possible emotional sets. With the technical possibilities to create realistic scenes advancing and screen sizes and, consequently also, presence, growing (Troscianko and Hinde 2011), the amount of emotiveness of films even does not seem to be at its limits yet. Similarly, music is an important means to share feelings and experiences and regulate social behaviour (Trehub 2003). This also makes it a traditional and very effective way of mood induction in the laboratory (Baumgartner et al 2006a; Westermann et al 1996), even though the range of emotions evoked by music probably differs from the range of emotions in "real life" (Scherer and Zentner 2008; Zentner et al 2008). How music's power to elicit emotions can be explained has been subject to scientific discussion over centuries (for a current overview, see, for example, Perlovsky 2010). It is not the aim here to provide a comprehensive overview of possible explanations, but we would like to mention two ideas: Perlovsky (2010) proposed the hypothesis that music's emotive power is evolutionarily rooted rather than accidental, with communication having split into one less emotive, semantic system, which has evolved into language, and one very emotive but semantically ambiguous system, which has evolved into music. An aspect of music that may also add to its emotiveness is its power to elicit memories (eg, Schulkind et al 1999), which then, in turn, can trigger emotional reactions—even though it has to be admitted that the direction of causality between emotion (or mood) and memory is not clear here and is supposedly mutual.

Obviously, one can think of a number of possible reasons why aesthetic impressions of film and music might be more affectively loaded than impressions of visual art. Regarding the artistic means of the art forms, it is noticeable, though, that visual art has developed a number of alternative ways to capture and attract viewers, especially in contrast to music: Notwithstanding possible disadvantages on the emotional side, it has obvious advantages on the content side, which, for example, make it easier to convey conceptual ideas. Likewise, many artists make use of perceptual plays, including visual illusions (see Ramachandran and Hirstein 1999; Van de Cruys and Wagemans 2011), which often need no or just a few words of explanation in order to be understood. In contrast, grasping of musical structures to become aware of surprising elements, ciphers, or the like, probably requires a significant amount of ear training.

The results of the correspondence analysis validate the differences between the three art forms that we pointed out above and yield a nice synthesis of the general tendencies. The

first dimension found is dominated by visual art and by aesthetic terms related to visual appearance, like *abstract*, *expressionistic*, or *colourful*. These are opposed to music and film and terms related to mood and emotion, like *cheerful*, *touching*, or *emotional*. The second dimension clearly differentiates film from music. Term-wise it contrasts aspects of plot, tension, and comprehensibility (*realistic*, *shocking*, *confusing*, etc), on the one hand, to descriptors of style and mood (*gentle*, *classical*, *soothing*, etc), on the other hand.

When we turn from differences to similarities, we first see that the correlations between the likelihood ratings for the different art forms reflect their similarity and association in real life. Music and film are difficult to discuss independently, since the latter hardly ever goes without the former and films combine visual information and sound into an intersensory whole (Chion 1994; Morris 2011). As for the combinations visual art–film and visual art–music, both visual art and film are predominantly related to the visual modality, whereas art and music differ not only in temporal extension (as do art and film) but also in modality. Accordingly, the correlation between the ratings for film and music are highest, followed by visual art–film and visual art–music, in this order. Even though the similarity in aesthetic word usage between visual art and film is stronger than between visual art and music, this similarity yet seems to be based on fewer terms (9 in comparison to 21 for visual art and music). This becomes clearer when we analyse which terms constitute the core of similarities in aesthetic word usage. Our data suggest that the core of the similarities between visual art and film is made by *beautiful*, *dreamy*, and *chic*, two terms related to the idea of being special (*ordinary* and *innovative*) and by a number of terms that relate to comprehensibility, namely *bizarre*, *strange*, and *absurd*. Thus, one could summarise the topics underlying the main communalities in word usage between visual art and film as beauty, originality, and comprehensibility. In the case of visual art and music, the amount of terms related to being special or unique (eg, *special*, *innovative*, *interesting* and *ordinary*) is increased. We again find terms related to beauty, *beautiful* and *wonderful*, the term *dreamy*, as well as terms that may describe aspects of comprehensibility (*chaotic*, *bizarre*, and *exaggerated*, *cluttered*). As opposed to the relation between art and film, the core set of terms also includes *lively*, as well as terms related to profoundness, like *profound* or *dramatic*. For both film and music, the core of similarities with visual art obviously comprises *ordinary*, *bizarre*, *dreamy*, *beautiful*, *unbelievable*, and *innovative*. We interpret this as a hint that these terms might constitute a common denominator of aesthetic vocabulary for the arts and might thus be very interesting candidates for instrument development in all three art forms (see below).

This touches upon one of the most important questions regarding word usage in aesthetics: What can we learn from the data with a view to suitable measurement instruments to assess aesthetic impressions? The issue of adequate measures constitutes one of the major obstacles for experimental psycho-aesthetics (Locher 2011; Wagemans 2011). Our data suggest, that, as has been shown for different visual object classes (Augustin et al 2012) and for music alone (Istok et al 2009), *beautiful* seems to be an equally safe choice if one is looking for a single-item measure to assess aesthetic impressions of visual art, film, or music. Additionally, though, one should also consider choosing terms that denote aspects of originality, such as *innovative*. Another interesting candidate is the term *dreamy*. Other facets of aesthetic experiences besides the ones just indicated probably depend strongly on the art form under consideration. Future studies should thus systematically try to find out what characterises these additional facets and then use this information to develop standardised questionnaires to assess aesthetic impressions of different art forms. We assume that for visual art the list used in this study can serve as a solid basis for instrument development. To start with questionnaire development for film and music,

additional studies seem necessary, since, as explicated in the introduction, the word pool used in this study is "biased" towards visual art and might thus lack several terms that are specifically suitable to describe aesthetic impressions of music or film or both. Researchers with a particular interest in assessing aesthetic impressions of music may also first consult the *Geneva Emotion in Music Scale* by Zentner et al (2008), which is a well-standardised instrument to measure emotions evoked by music and thus probably provides a very good way of approaching the emotional facets of aesthetic experiences of music.

All in all, our study suggests that the interplay of generality and specificity in aesthetic word usage that we identified for a variety of visual object classes ranging from visual art to cars to geometric patterns (Augustin et al 2012) can also be found within the realm of the arts. *Beautiful* is equally likely to be used for visual art as for film or music, and the same is true for terms like *dreamy* and *unbelievable* as well as several terms related to *originality*. On the other hand, we find clear differences between the art forms in terms of likelihood of use of other words. Whereas aesthetic descriptions of outer appearance are (naturally) mostly specific to visual art, it is especially the likelihood of use of terms describing emotions and moods that differentiates visual art from both film and music. Doubtlessly, aesthetic experiences of visual art can be very emotional—but on average they may not have as much emotive power as experiences of film or music. Several aspects certainly have to be kept in mind. First, our participants were students of psychology (mostly women) in their late teens and early twenties and not a sample of experts for any of the three art forms. Inferring from everyday experience as well as from data by McManus and Furnham (2006) about the aesthetic habits of a big sample of mostly young adults and teenagers, we assumed that the participants' interest and involvement with music and film was on average higher than with visual art. Such differences in the personal relevance of and familiarity with the different art forms may possibly lead to biases in judgments, especially with respect to the amount of emotionality associated with the given art form. Furthermore, our study was limited to the Dutch language and thus has to be interpreted within the Belgian/Dutch cultural and language framework. Research has shown that language use and meaning may differ strongly between different cultures (Evans and Levinson 2009), and this, for example, also affects the verbal coding of emotions (Matsumoto and Assar 1992; Russell 1991). Therefore, future studies should not only systematically examine and consider the role of different kinds of expertise but also of cultural background and native language. Cross-cultural investigations will be able to reveal to what extent the effects reported here are universal or rather language-dependent. Another important aspect regarding future studies concerns interdisciplinary cooperation. Given that the field of language use and its relation to meaning is a very complex one (see our indication of possible problems in the introduction), cooperation between psychologists and linguists seems very promising, in order to understand the phenomenon of aesthetic word usage in a more holistic way by combining the specific fields of expertise and methodological approaches.

As written in our previous paper (Augustin et al 2012), there is still a lot of work to do in the realm of aesthetic word usage and terminology, but since we are convinced it may teach us a lot about the phenomenon of aesthetic experiences, this work definitely seems worthwhile.

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