Can fashion aesthetics be studied empirically? The preference structure of everyday clothing choices

Young-Jin Hur[1], Nancy L. Etcoff[2], Emmanuel S. Silva[1]

Fashion Business Research, Fashion Business School, London College of Fashion, University of the Arts London[1], Harvard Medical School[2], and Massachusetts General Hospital[2]

Abstract

Despite fashion being one of the most common and accessible aesthetic activities in everyday life, very few empirical studies of clothing selection and preferences exist. To address this empirical gap, an online survey of 500 participants was constructed. A four-factor preference structure, Everyday Clothing Preference Factors (ECPF), emerged, consisting of essential, comfortable, feminine, and trendy styles. Further analysis revealed the preference for each of these four factors to be associated with clothing colors and individual differences. The transferability of ECPF across three preference judgment types (clothing one likes and owns, clothing one likes but does not own, and clothing one owns but does not like) revealed the robustness of the preference structure, through which a short questionnaire version of ECPF was created. The paper concludes by discussing the implications and impact of scientifically studying fashion as an object of aesthetics and empirical study.

Keywords: aesthetics, fashion, preference, individual differences, personality, wanting vs. liking

Introduction

Clothing oneself is a daily aesthetic activity. The limited number of psychological studies done on fashion have been examined largely in the context of interpersonal perceptions, body image, group identity, cultural aesthetics, and social psychology (e.g., Kaiser, 1997; Lennon, Johnson, & Rudd, 2018; Mair, 2018).[1] Fashion has also been interpreted within the scope of evolution and mating as a signaling device of social status and sexual attraction (e.g., Etcoff, 1999). The limited, yet fascinating literature in fashion psychology, thus, highlights both the causes and consequences of clothing from a social perspective.

However, still missing in the literature is a systematic study on clothing preferences and their correlates. The present study asks whether a preference structure of clothing style can be articulated and whether clothing preferences can be factored by style (i.e., shape/cut), color (e.g., hue, brightness, & saturation), and individual differences (e.g., personality). Finally, the paper explores similarities and differences in what clothing people like and what clothing they want and often purchase.

Why study fashion preferences in the first place? The study of preference is one of the oldest inquiries in modern psychology (Fechner, 1876). Preference has since been studied across a wide range of art and aesthetic domains, from paintings (Chamorro-Premuzic, Reimers, Hsu, & Ahmetoglu, 2009; Eysenck, 1940, 1941) to music (Cattell & Saunders, 1954; Rentfrow & Gosling, 2003), and have been found be associated with certain individual differences dimensions. Preference is seen as an automatic evaluation process that does not necessarily require consciousness; preference may, therefore, be a common, if not, inevitable experience (Palmer, Schloss, & Sammartino, 2013).

In this context, while fashion is undoubtedly a social experience and is a noted method of self-expression and social signaling (Etcoff, 1999), fashion is also inevitably an aesthetic object. Every decision to wear a piece of clothing over another is an active decision-making process based on certain social considerations, and yet the very act of decision-making indicates an outcome of evaluation or preference.

Certain antecedents of clothing preference have been explored in a small number of studies. These studies specifically investigated the roles of positive mood (Moody, Kinderman, & Sinha, 2010), clothing

---

[1] "[T]here has been a general lack of interest in investigating fashion from psychologists (other than a few exceptional social psychologists)" (Mair, 2018, p. 14).

style (i.e., current, classic, newly-introduced, & outdated styles; Minshall, Winakor, & Swinney, 1982), and physical comfort and non-rebelliousness among male participants (Noh, Li, Martin, & Purpura, 2015). However, these studies have been largely exploratory, and have often drawn conclusions using small numbers of stimuli or participants, which ultimately limits their generalizability.

In line with previous works that explored preferences of various artforms and aesthetic activities (e.g., Rentfrow & Gosling, 2003), an exploration into basic preference structures can be derived using a set of clearly defined units of styles (or genres) that would ideally cover the majority of people's decisions in the said activity. In the case of clothing preference, this can be represented by standardized cuts (e.g., dress, jeans, & shirt, etc.), and similar physical attributes of clothing. Accordingly, the study of a preference structure can enlighten researchers and wearers of clothes on whether the preference of certain clothing styles can be grouped together into a smaller number of generalizable styles. In turn, the preferences for certain groups of clothing styles, characterized by unique physical attributes, may signal certain characteristics, e.g., personality traits, of a viewer.

Therefore, the overarching goal of the present study was to provide insight into the preference structure of everyday clothing preferences. Four aims were addressed. First, the study aimed to, by asking participants to select clothing items that they both like and own, explore whether a wide range of cut-based clothing styles (that would ideally cover the majority of variance in everyday clothing choices) can be classified into a small number of clothing style factors. Secondly, the study aimed to see whether the liking and owning of each clothing style factor correlates with several individual differences measures, with a focus on personality variables (e.g. conscientiousness) that have been studied extensively in the past (for research on the individual differences in clothing styles, see Albright, Kenny, & Malloy [1988], Borkenau & Liebler, [1992], Johnson & Francis, [2006], Stolovy [2021], and Vazire, Naumann, Rentfrow, & Gosling [2008]). Thirdly, the study aimed to understand whether each clothing style factor is associated with certain color schemes, another important physical attribute[2] in characterizing clothing (for research on the association between certain clothing styles and certain colors, see Elliot & Niesta [2008], Elliot, Niesta-Kayser,

---

[2] A recent pilot study has revealed that when fashion professionals and a sample from the general population were asked about the importance of physical attributes in clothing evaluation, visual attributes (e.g., cut & color) were reported to be the most important attributes, over other physical attributes (e.g., touch, smell, & sound).

Greitemeyer, Lichtenfeld, Gramzow, Maier, et al. [2010], Feltman & Elliot [2011], Frank & Gilovich [1988], Maier, Elliot, Lee, Lichtenfeld, Barchfeld, & Pekrun [2013], Pazda, Elliot, and Greitemeyer [2012], Rosenbusch, Aghaei, Evans, & Zeelenberg [2020], and Sidhu, Qualter, Higgs, & Guo [2021]). Lastly, the study aimed to assess whether the clothing style factors can be replicated with "liking but not owning" and "owning but not liking" preference rating data, given recent empirical works on the distinction between liking and wanting (Aharon, Etcoff, Ariely, Chabris, O'Connor, & Breiter, 2001; Berridge, Robinson, & Aldridge, 2009; Chatterjee & Vartanian, 2016).

Given that the present study gathered rating data from a large number of participants ($n = 500$) and a wide range of clothing cuts ($n = 34$), the work provides one of the first systematic operations into how people's own preferences in everyday clothing are structured, and how this structure can be characterized via item and observer characteristics.

Method

Participants

500 participants (307 female, 191 male, two preferred not to say) were recruited for the study. The sample size is based on the recommendation by Comrey and Lee (1992), who suggested a sample of at least 500 when running factor analysis studies (assuming sufficient power). Of these participants, 88 participants were aged 18-24, 134 were aged 25-34, 101 were aged 35-44, 86 were aged 45-54, 84 were aged 55-64, and seven preferred not to reveal their age at the time of data collection. All participants resided in the UK, and were sampled through Prolific, an online participant recruitment platform; these participants were financially compensated at a rate of £9 per hour (pro-rata), which is outlined by Prolific as a fair reward. No participants were excluded from subsequent analyses. Informed consent was obtained from all participants and the study received ethical clearance from London College of Fashion's Research Committee preceding data collection.

Design and Procedure

The study was designed and run through Qualtrics, an online surveying tool, and lasted around 10-15 minutes. Excluding the study information page/consent form and debrief (respectively representing the first

and the last page in the survey), the survey was divided into three parts. Details of the materials and stimuli used in the study are specified below in the Materials and Stimuli section.

Firstly, all participants viewed a list of 34 everyday clothes (in alphabetical order) and were asked to choose as many options as they liked of clothes they *owned because they liked them*. The same clothes-choosing task was repeated twice afterward, but once for clothes they *liked but did not own* and once for clothes they *owned but did not like*.[3] Considering the possibility that a participant did not find a question applicable or that the provided clothing list was not exhaustive, each participant was also given the additional options "Not applicable" and "Option(s) not available above – please state your option(s)" for each of the three questions.

Secondly, all participants viewed a list of 18 colors and were asked to choose as many options as they liked of colors that they *owned because they liked* these colors in their everyday clothing. To approximate and guide each participant to the meaning of each color, each color name was paired with a squared visual stimulus of that specific color (please note that the visuals were used as guidance only, as visual calibration across all participants' personal screens was not possible). As before, the options "Not applicable" and "Option(s) not available above – please state your option(s)" were added to the list of colors. This task was followed by three color-related questions, measured in Likert-like scales. Participants reported color characteristics in everyday clothing they *owned because they liked* in terms of brightness (from "very dark" [1] to "very light" [5]), saturation (from "very colorless/very weak-colored" [1] to "very colorful/very intense-colored" [5]), and the number of colors (from "single-colored/monotone" [1] to "4+ colored" [5]). Each of these scale-based questions had a "Not applicable" option.

Thirdly, all participants viewed and rated several measures on individual differences and demography. These measures came at the end to minimize potential priming effects on the preceding questions.

---

[3] It should be noted that the present work did not measure *liked* and *owned* as separate measures. Empirical works on sublimity and beauty, for example, have demonstrated that when people make judgments on two related but different variables without particular instructions, participants appear to confound the two measures when each variable is measured one at a time (Hur, 2020; see also Hur, Gerger, McManus, & Leder [2020] and Hur, et al. [2022] for applications). Because the present study assumed liking and owning to be two separable constructs (e.g., Aharon et al., 2001; Chatterjee & Vartanian, 2016) despite them appearing to be correlated in everyday usages of the terms, and because the study was ultimately interested in exploring behavioral venues where liking and owning differ, the present measures – where liking and owning are explicitly distinguished – were adopted. Analytically, it was also reasoned that the collected data would be more interpretably direct if participants were directly asked about clothing they, for example, liked but did not own, instead of inferring this separation after independent measurements of liking and owning.

Materials and Stimuli

Everyday Clothing

The list of 34 everyday clothing categories was aimed to capture a wide range of everyday clothing choices. While it would be impossible to exhaustively capture every single clothing choice from the entire population, the aim of the list was to represent and, ideally, explain the variance of at least 80% of everyday clothing. These clothing categories would sufficiently (i.e., permitting some overlap between categories but without the aim to encompass all eclectic personal tastes) delineate different styles and types of designs, akin to the organization of music genres.

To do this, two prominent online-shopping websites specializing in clothing sales were studied. It was not necessary to go beyond these two, as there were already many overlaps of clothing choices among most websites, and as these two websites already generated what appeared to be a large enough number of clothing categories. It was also assumed that online-shopping websites would best estimate up-to-date trends in both design and clothing terminologies in representing real-life clothing purchase behaviors.

Clothing categories were pooled from both men's and women's sections. Certain categories were excluded because they were too general (e.g., shoes), not necessarily clothes-related (e.g., accessories), and/or too culture-specific (e.g., kimono). A couple of fashion experts who have worked for more than five years in the fashion industry and who were not aware of the purpose of the study were consulted to verify that the list covered most clothing types.

In the end, the following 34-item list was generated: activewear, blouses, boiler suits, cardigans, chinos, coats, co-ords, dungarees, dresses, hoodies, jackets, jeans, joggers, jumpers, jumpsuits & playsuits, leggings, lingerie, loungewear, nightwear, polo shirts, shirts, shorts, skirts, suits, sweatshirts, sweaters, sweatpants, swimwear & beachwear, tights, tops, tracksuits, trousers, t-shirts, and vests.

Colors

17 of the 18 colors were derived from a set of colors used in the work by Bakker, van der Voordt, Vink, de Boon, and Bazley (2013). After consulting two fashion experts, beige was added to the list, for the reason that beige is a prominent color in clothing.

The squared visual stimulus (128 × 128 pixels) for each color was generated by matching the 18 color names to HTML names, through which the HTML names were than matched with their standardized six-digit hex triplet code. The following list of colors was used in the study (the hex triplet code is presented in brackets): white (#FFFFFF), beige (#F5F5DC), lilac (#C8A2C8), violet (#EE82EE), dark blue (#021691), blue (#080FF1), light blue (#B5E0F1), turquoise (#40E0D0), green (#0B7B00), light green (#66FF99), yellow (#F0F000), orange (#FFA500), pink (#FFC0CB), red (#FF0000), dark red (#8F1500), brown (#A0522D)[4], gray (#808080), and black (#0F0802).

Individual Differences and Demographics Measures

Participants were provided with several scale-based self-reported psychometrics measures. To explore one's fashion orientation, Gutman and Mills'(1982) 17-item fashion orientation scale was used. The scale accompanies four independent factors, namely fashion leadership (e.g., "I am aware of fashion trends and want to be one of the first to try them"), fashion interest (e.g., "Because of my active life style, I need a wide variety of clothes"), the importance of being well-dressed (e.g., "It's important to be well-dressed"), and antifashion attitude (e.g., "I resent being told what to wear by so-called fashion experts").

Furthermore, to explore one's general aesthetic activities, a slightly modified version of McManus and Furnham's (2006) 17-item aesthetic activities scale (from very frequently [1] to never [7]; to incorporate recent trends, the "watch television" question was changed to "watch television or Netflix") was adopted. While the scale produces an overall aesthetic activities score, the scale also can result in five subfactors, namely popular music (e.g., listening to popular music), classical music (e.g., going to classical music concerts), visual arts (e.g., going to art galleries), literature (e.g., reading novels), and performance art (e.g., going to the theatre) activities scores. These aesthetic activities are known to correlate with various predictors of general aesthetic attitudes and behaviors, such as personality and demography (McManus & Furnham, 2006). Because fashion is – as mentioned in the introduction – an everyday aesthetic activity that is likely to bear important personality correlates (e.g., Stolovy, 2021), and since it may be fruitful an attempt to analyze fashion behaviors in light of other everyday aesthetic activities, aesthetic activities were measured.   To

---

[4] Note that the code represents sienna, not brown. This was due to several participants in a pilot study pointing out that brown looks too similar to dark red.

capture the Big Five personality dimensions (a measure frequently used in fashion psychology research to explore personality traits and their associations with fashion behaviors, e.g., Stolovy, 2021), the 30-item Big Five Inventory-2 Short Form (i.e., BFI-2-S; Soto & John, 2017) was used. The measure not only produces the five domain scores of extraversion, agreeableness, conscientiousness, negative emotionality, and open-mindedness, but also produces three facets for each domain.

Lastly, in addition to the usual demography measures (e.g., gender & age), participants were asked about their political orientation on a scale of 1 (very liberal) to 5 (very conservative; Kanai, Feilden, Firth, & Rees, 2011). Previous works on aesthetic preference, for example, reported important correlations between political orientation and music preferences (Rentfrow & Gosling, 2003). Additionally, given fashion's close relationship with social identity (Mair, 2018), the measure of political orientation was judged as an important and parsimonious proxy for self-perceived social identity. All demography measures and the political orientation measure included the option of "Prefer not to say."

Openness and Transparency Statement

All (anonymized) data are available as supplemental material. Analysis codes are also available as supplemental material. The study was not pre-registered. All study materials and analysis methods can be accessed from the descriptions provided in the present paper. Please contact the lead author for further details of the study.

Results

Reliability of Scales

The discussed individual differences scales presented generally acceptable levels of Cronbach's α reliability. For the fashion orientation scale, fashion leadership, fashion interest, the importance of being well-dressed, and antifashion attitude had reliability scores of .88, .82, .82, and .59 respectively.

While the overall aesthetic activities scale had a reliability score of .81, each of the subfactors, namely popular music, classical music, visual arts, literature, and performance art, had reliabilities of .46, .56, .67, .72, and .84 respectively. While the reported reliability scores are lower than the usually accepted score (around

.70), these reliability scores for each subfactor were similar, if not mostly higher, than those presented in the original paper by McManus and Furnham (2006). In this original paper, as well as in various other sources (Fox, McManus, & Winder, 2001; Gosling, Rentfrow, & Swann, 2003; Kline, 2000), low Cronbach's α scores for scales with small numbers of items have generally been defended. It has been argued, for instance, that scales with small numbers of items are designed to produce low Cronbach's α values given that it covers a valid (psychological) construct with the minimum number of items (thus, the items have minimum redundancy and, hence, low correlations with each other); the efficiency of a measurement and its validity should be prioritized over internal reliability.

Lastly, the Big 5 personality dimensions of extraversion, agreeableness, conscientiousness, negative emotionality, and open-mindedness had reliability scores of .76, .79, .82, .89, and .74 respectively. Note that all facets within each of the five Big 5 personality dimensions are calculated based on two items. Reliability scores for these facets were not calculated given the concern that Cronbach's α reliability may be misleading for scales with small numbers of items (e.g., Gosling et al., 2003; Kline, 2000).

Factor Structure of Everyday Clothing One Likes and Owns

The questionnaire asked participants to choose as many clothing categories they liked and owned (see Figure 1 for a visualization of people's selections). To determine whether there would be a factor structure underlying this preference, an exploratory factor analysis was run.

The data was prepared so that a participant's selection of an item was coded dichotomously. Specifically, the selection of an item was coded as 1; otherwise, the item was coded as 0. This resulted in a numeric data frame sized 500×34, with each row representing one of the 500 participants and each column representing one of the 34 everyday clothing categories.

Importantly, since traditional factor analysis methods are based on correlation tables of continuous variables, the present analysis' dichotomous response asks for certain analytical decisions. While one can use phi coefficients (the coefficients deriving from computing Pearson correlations on dichotomous variables) or

use tetrachoric correlations, the present work has opted for the latter option given its wider use.[5] Unless specified, all analyses were run via R version 3.4.1 and IBM SPSS Statistics version 28.

A parallel analysis was carried out, which revealed the presence of four potential factors. Based on the parallel analysis, a principal component-based exploratory factor analysis was run with varimax rotation (varimax rotation meant that correlations between the factors were .00). The first ten eigenvalues (based on unrotated PCA) were 10.92, 4.94, 2.57, 1.70, 1.31, 1.18, 1.11, 0.99, 0.92, and 0.88. The sum of squared loadings across the rotated factors were 8.98, 4.74, 4.41, and 1.99. The extracted four factors were easily interpretable, and the rotated factor loadings are presented in Table 1.

The first factor loaded strongly on, for example, dresses, skirts, lingerie, tights, leggings, cardigans, and blouses, and could be characterized as *feminine* clothing. The second factor loaded strongly on, for example, shirts, suits, jackets, trousers, and chinos, and could be characterized as *essential* clothing. The third factor loaded strongly on, notably, hoodies, sweatpants, joggers, sweatshirts, tracksuits, and activewear, and could be characterized as *comfortable* clothing. Lastly, the fourth factor loaded strongly on two items, namely, boiler suits and dungarees; these garment types could be characterized as *trendy* clothing. The raw (tetrachoric) correlation coefficients between the 34 items are added as supplemental material.

Most clothing choices loaded predominantly on one factor. However, coats and swimwear/beachwear loaded almost equally onto both the *feminine* and *essential* factors. While the polo shirts item was predominantly negatively loaded onto the *feminine* factor, it also loaded strongly on the *essential* factor. While sweaters and shorts loaded mostly on the *essential* factor, they also were somewhat linked with the *comfortable* factor. Henceforth, these four factors are collectively called Everyday Clothing Preference Factors.

---

[5] Note that phi coefficients do not necessarily outperform tetrachoric correlations in factor analysis using dichotomous variables (Perry & McArdle, 1991; Weng & Cheng, 2003). In the present report, comparison between the two methods did not reveal major differences.

Figure 1

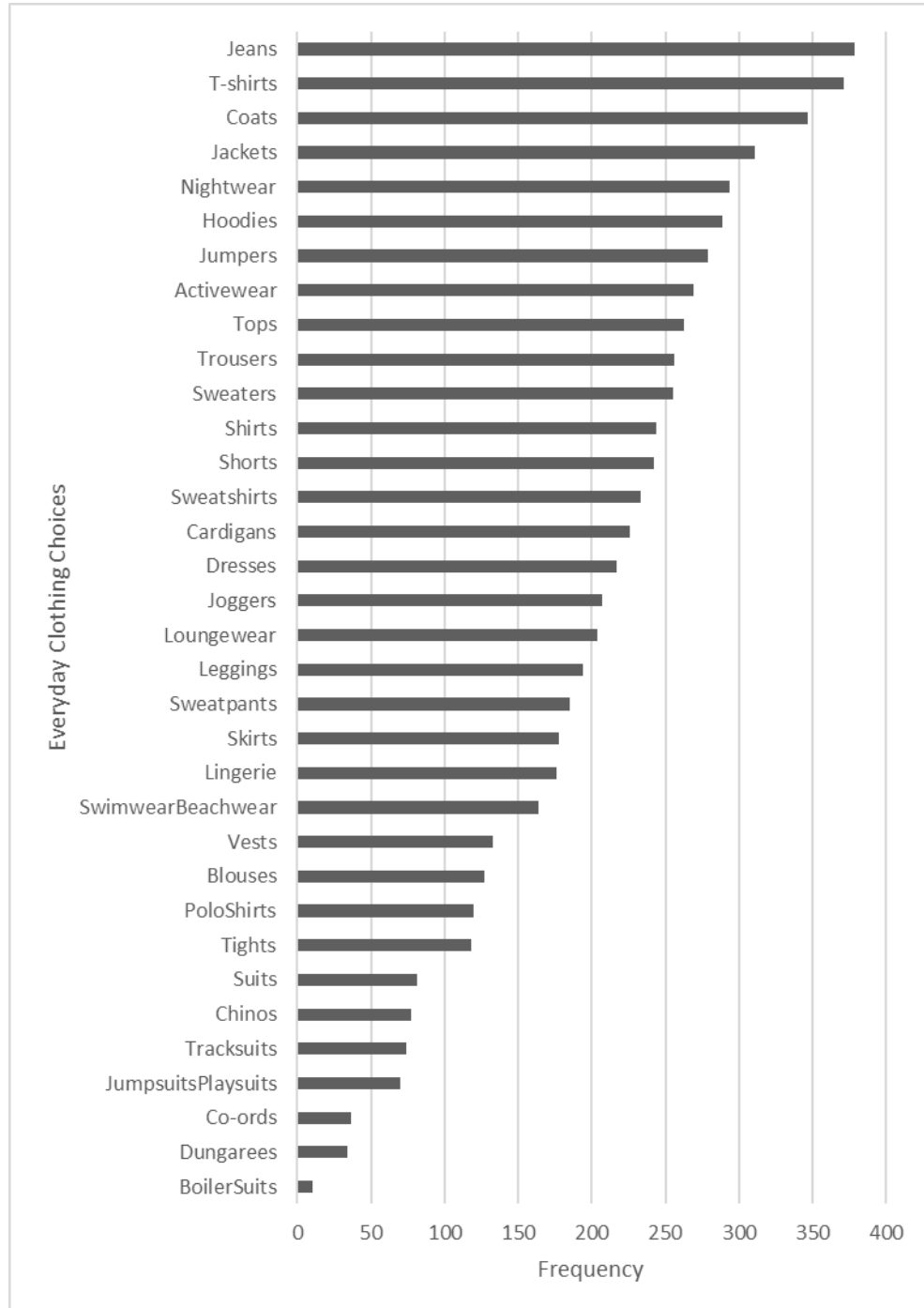Frequencies of the various clothing one likes and owns

Table 1

Rotated factor structure (factor loading) of clothing one likes and owns (exploratory factor analysis)

	Feminine	Essential	Comfortable	Trendy	Communality
Dresses	**.91**	-.08	.00	.19	.87
Skirts	**.86**	-.04	.09	.01	.76
Lingerie	**.83**	.03	.10	.07	.71
Tights	**.83**	.01	.16	.12	.73
Leggings	**.79**	-.13	.31	-.04	.73
Cardigans	**.78**	.03	.04	.01	.60
Blouses	**.77**	.21	.03	-.08	.64
Tops	**.75**	.23	.22	.05	.66
Polo Shirts	**-.64**	.47	.06	-.37	.77
Jumpsuits/Playsuits	**.63**	-.01	.39	.42	.72
Nightwear	**.62**	.01	.22	.04	.43
Co-ords	**.59**	.34	.03	.39	.61
Vests	**.51**	.20	.13	.10	.33
Jumpers	**.51**	.42	.21	.03	.48
Shirts	-.17	**.70**	.13	-.05	.54
Suits	-.33	**.67**	.00	.06	.56
Jackets	.27	**.65**	.19	.07	.54
Trousers	.31	**.64**	.10	.14	.54
Chinos	-.36	**.61**	.05	.11	.52
Coats	**.54**	**.59**	-.02	-.04	.64
Swimwear/Beachwear	**.51**	**.53**	.15	.13	.58
T-shirts	.27	**.52**	.34	-.28	.54
Jeans	.20	**.51**	.22	-.34	.47
Sweaters	.30	.48	.34	.17	.47
Shorts	-.02	.48	.31	.06	.33
Hoodies	.16	.05	**.81**	.05	.68
Sweatpants	.15	.10	**.81**	.02	.68
Joggers	.09	.14	**.80**	-.03	.68
Sweatshirts	.21	.31	**.66**	-.06	.58
Tracksuits	-.02	.24	**.63**	.13	.47
Activewear	.06	.23	**.55**	.14	.37
Loungewear	.45	-.08	**.51**	.06	.47
Boiler Suits	.11	.21	.06	**.83**	.75
Dungarees	.30	-.08	.38	**.65**	.66

Note. Marked in bold are loadings that are larger than .50. These bolds are for emphasis purposes only, to underscore the degree to which certain individual clothing items are particularly associated with certain Everyday Clothing Preference Factors. For the correlation analyses following this exploratory factor analysis, clothing items were not categorized into one of the four Everyday Clothing Preference Factors.

Correlates of Everyday Clothing Preference Factors

   Factor scores derived from the Everyday Clothing Preference Factors were extracted and were correlated (Pearson) with the following sets of variables: (1) preferred color in everyday clothing one owns and likes; (2) fashion orientation's four factors; (3) the general aesthetic activities score and their four subfactors; (4) Big 5 personality dimensions and their facets; (5) political orientation; and (6) age and gender. Given multiple testing and hence to control for Type 1 error inflation, significant correlations of $p < .001$ were considered. These correlations are presented in Table 2.[6]

---

[6] Exact p-values and 95% confidence intervals for these correlations are available upon request.

Table 2a

Correlates of the Everyday Clothing Preference Factors

		Feminine	Essential	Comfortable	Trendy
	White	**.20*****	**.19*****	**.18*****	-.04
	Beige	**.16*****	**.17*****	.14**	.09*
	Lilac	**.29*****	-.03	.06	.00
	Violet	**.23*****	.00	-.02	.08
	Dark blue	-.03	**.15*****	-.08	-.07
	Blue	.04	**.20*****	.00	-.11*
	Light blue	**.15*****	**.24*****	.11*	.02
	Turquoise	**.16*****	.03	.03	.03
	Green	.08	.15**	-.01	.08
	Light green	.14**	.07	.02	.03
Color	Yellow	**.18*****	.07	.05	.10*
	Orange	.14**	.06	.09*	.07
	Pink	**.39*****	.03	.07	.02
	Red	.14**	.10*	.03	-.07
	Dark red	**.16*****	.13**	.01	.01
	Brown	.14**	**.17*****	.01	.13**
	Gray	.06	.10*	.14**	.02
	Black	.03	.05	.09*	.00
	Brightness	.07	.05	.08	.03
	Saturation	**.15*****	-.05	-.14**	.04
	Color number	.07	-.04	-.04	.10*
	Fashion leadership	**.21*****	.08	**.17*****	.10*
Fashion	Fashion interest	**.30*****	.11*	**.20*****	.05
Orientation	Importance of being well-dressed	**.16*****	**.15*****	.02	-.01
	Antifashion attitude	-.10*	**-.16*****	-.04	-.01
	Overall	-.09*	-.09	-.02	-.14**
	Popular music	**-.22*****	-.14**	-.10*	-.01
Aesthetic	Classical music	.10*	-.03	.05	-.13**
Activities	Visual arts	-.06	-.08	-.03	**-.17*****
	Literature	-.10*	-.03	.02	-.08
	Performance art	-.04	-.01	-.02	-.08
	Political orientation	-.11*	.14**	-.10*	-.11*
Others	Age	.00	.06	**-.39*****	**-.18*****
	Gender	**.78*****	**-.27*****	.02	-.01

Note. *p < .05, **p < .01, ***p < .001. Marked in bold are correlations significant at p < .001. For Aesthetic Activities, lower scores indicate a higher frequency of engagement. For Gender, male is coded as 1 and female as 2.

Table 2b

Correlates of the Everyday Clothing Preference Factors (Big 5)

		Feminine	Essential	Comfortable	Trendy
Extraversion		.04	**.22*****	.09*	-.02
	Sociability	**.16*****	**.17*****	.04	-.04
	Assertiveness	-.07	.14**	.08	.02
	Energy level	.00	**.21*****	.10*	-.03
Agreeableness		.13**	-.01	.00	-.05
	Compassion	**.19*****	-.08	.00	-.05
	Respectfulness	.14**	.01	.00	-.07
	Trust	.01	.03	.00	-.01
Conscientiousness		.08	**.18*****	-.05	-.13**
	Organization	.04	**.17*****	-.02	-.12**
	Productiveness	.05	**.15*****	-.08	-.08
	Responsibility	.13**	.11*	-.02	-.12**
Negative emotionality		**.19*****	**-.24*****	.13**	.11*
	Anxiety	**.24*****	**-.21*****	.11*	.08
	Depression	.04	**-.23*****	.12**	.11*
	Emotional volatility	**.23*****	**-.21*****	.12**	.10*
Open-mindedness		.08	.11*	.04	.08
	Aesthetic sensitivity	.13**	.06	.02	.11*
	Intellectual curiosity	.02	.14**	.01	.03
	Creative imagination	.02	.08	.08	.04

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Marked in bold are correlations significant at $p < .001$.

There were prominent color preferences for those who like and own feminine clothing (e.g., lilac, violet, turquoise, yellow, pink, dark red, etc.) and essential clothing (e.g., dark blue, blue, brown, etc.). There was also a preference for white for the liking and owning of comfortable clothing. However, color preference did not correlate with the liking and owning of trendy clothing. In terms of fashion orientation, people with the propensity to like and own feminine clothing displayed high levels of fashion leadership, fashion interest, and the view that it is important to dress well. Those who like and own comfortable clothing were also high on fashion leadership and interest. Those who like and own essential clothing thought it was important to dress well while being low in anti-fashion attitudes. When it comes to aesthetic activities, only two significant relationships emerged; those who like and own feminine clothing engaged themselves with popular music

frequently, and those who like and own trendy clothing were engaged with visual arts often. While political orientation did not correlate with one's everyday clothing behaviors, the liking and owning of comfortable and trendy clothing was associated with a decrease in age. Gender played a substantial role; the preference for feminine clothing was strongly linked with one being a female, while essential clothing was strongly linked, albeit with less than half the effect size, with one being a male.

Several Big 5 personality dimensions along with their facets were associated with one's liking and owning of everyday clothing types, in particular, the feminine and essential clothing types. Those who owned and liked feminine clothing tended to be high in compassion, general negative emotionality, anxiety, and emotional volatility. On the other hand, those who liked and owned essential clothing were high in general extraversion, sociability, energy level, general conscientiousness, organization, productiveness, and low in all facets of negative emotionality (i.e., anxiety, depression, and emotional volatility) including general negative emotionality.

Given the high correlation found between the clothing preference factors and gender, it may be argued that some of these Big 5 correlations may be explained by gender differences. Indeed, previous works have pointed out the existence of gender differences, especially in certain facets of extraversion and negative emotionality (Weisberg, DeYoung, & Hirsh, 2011). Therefore, when a partial correlation was run on the same variables while controlling for gender, all the feminine factor's Big 5 correlations disappeared (based on the p < .001 threshold of significance). On the other hand, for the essential factor's significant correlations with the Big 5 facets, all but those in links with anxiety and emotional volatility were retained.

Transferring Everyday Clothing Preference Factors to other Preference Types

The questionnaire asked participants to input three clothing preference types not only by asking them to select everyday clothing options that they liked and owned, but also those that they liked but did not own and owned but did not like. Although it should not be expected that an individual would necessarily choose a certain item for the three preference types simultaneously, it is possible that the aforementioned Everyday Clothing Preference Factors may be retained in all three preference types. This may indicate that the factor structure of preference may exist as part of a larger psychological framework of clothing preference. It was also thought that a usable short version of the Everyday Clothing Preference Factors could be created. To test

test out the stability of the Everyday Clothing Preference Factors and to create a usable, short version of the 34-item clothing preference questionnaire, a set of confirmatory factor analyses was run via R's *lavaan* package (Rosseel, 2012).

Several items from each of the four Everyday Clothing Preference Factors thought to best and most efficiently represent the factor most readily were selected. This was done by prioritizing items that loaded high on each factor (and that do not cross-load onto other factors). In the final selection of items ($n = 15$), the feminine factor was represented by dresses, skirts, lingerie, tights, and blouses (Cronbach's α = .83); the essential factor was represented by shirts, jackets, trousers, and chinos (Cronbach's α = .52); the comfortable factor was represented by hoddies, joggers, sweatpants, and sweatshirts (Cronbach's α = .72); lastly, the trendy factor was represented by dungarees and boiler suits (Cronbach's α = .20). As expected[7], the model provided an acceptable level of fit (*CFI* = .95, *TLI* = .94, *RMSEA* = .06). Also as expected, some of the Cronbach's α values were not especially high. The commonality of low Cronbach's α values in scales with small numbers of items has been discussed already in the "Reliability of Scales" section in the Results.

To what degree can this factor structure fit the other two preference types? A set of two confirmatory factor analyses was carried out using the same 15 items and their factor structure but on the two untested preference datasets. The model provided acceptable to good levels of fit for everyday clothing one likes but does not own (*CFI* = .94, *TLI* = .93, *RMSEA* = .02) and everyday clothing one owns but does not like (*CFI* = .97, *TLI* = .97, *RMSEA* = .01). These results demonstrate that the four Everyday Clothing Preference Factors may be generalized beyond the preference for liking and owning clothing.

Based on the verification that the four Everyday Clothing Preference Factors are present across the three preference types, a Chi-squared test of independence was computed between the 15-item Everyday Clothing Preference Factors (i.e., feminine, essential, comfortable, & trendy) and preference type (i.e., liking and owning, liking but now owning, and owning but not liking). The test revealed that the two variables were not independent, χ^2 (6, 3592) = 551.32, $p < .001$ (see Table 3). It can be observed among clothing items that are both liked and owned, the highest percentages come from comfortable clothing (82.71%) and the lowest

---

[7] It should be noted that the purpose of the confirmatory factor analysis was to verify that the factor structure can operate with parsimony (i.e., using a smaller number of items) and that this parsimonious solution can operate on two related, albeit untested, datasets.

from trendy clothing (21.36%). However, among clothing items that are liked but not owned, the relationship is reversed, with comfortable clothing being the lowest (9.32%) of all four Everyday Clothing Preference Factors and trendy being the highest of the lot (69.42%). Among clothes that are owned but not liked, the highest percentage comes from feminine clothing (14.66%), and the lowest from comfortable clothing (7.96%).

Table 3

Frequency distribution of Everyday Clothing Preference Factors across preference types

Preference Types	Feminine		Essential		Comfortable		Trendy		Total	
	N	%	N	%	N	%	N	%	N	%
LAO	816	70.34	888	79.21	914	82.71	44	21.36	2662	74.11
LNO	174	15.00	131	11.69	103	9.32	143	69.42	551	15.34
ONL	170	14.66	102	9.10	88	7.96	19	9.22	379	10.55
Total	1160	100.0	1121	100.00	1105	100.00	206	100.00	3592	100.00

Note. LAO: liking and owning; LNO: liking but not owning; ONL: owning but not liking. The frequencies represent the total number of selections for each Everyday Clothing Preference Factor (each with multiple items) and preference type combination across all participants.

Discussion

While fashion is one of the most common and accessible aesthetic activities, no work to date has systematically studied the preference structure of everyday clothing and its characteristics. Therefore, the present work's general aim was to produce one of the first accounts of clothing preference, taking an extensive range of cut-based clothing styles, clothing colors, and individual differences measures into account.

The findings of the paper can be generalized into four main points, each referring to the four main aims mentioned in the introduction. Firstly, individual clothing styles can be structured into four clear and meaningful preference factors (i.e., Everyday Clothing Preference Factors), namely *feminine* (e.g., dresses & skirts)*, essential* (e.g., shirts & jackets)*, comfortable* (e.g., hoodies & joggers)*,* and *trendy* (i.e., dungarees & boiler suits) factors. While past works have provided blueprints as to the preference structure of clothing

styles (e.g., casual vs. classic vs. fashionable vs. business casual vs. sportswear styles in Noh et al. [2015]; athletic vs. causal vs. cowboy/cowgirl vs. gothic vs. hip-hop vs. hippie vs. preppy vs. punk vs. skater vs. surfer vs. trendy style tribes in Johnson & Francis [2006]; and casual vs. romantic vs. dramatic vs. classic vs. urban/electic styles in Stolovy [2021]), these past distinctions have either been exploratory, specific to a certain sample of the population, and/or unclear in its development process. As such, the present work is the first of its kind to systematically explore cut-based clothing styles based on a large number of participants.

Secondly, the paper identified sets of individual differences measures that were particularly associated with each Everyday Clothing Preference Factor. Previous works had particularly reported much on conscientiousness. Negative correlations were reported between conscientiousness and wearing clothing that can be described as anti-fashion (Johnson & Francis, 2006) and informal (Borkenau & Liebler, 1992). Conversely, conscientiousness was related to owning and identifying (oneself) with the styles of formal, conventional, and representative clothes, as opposed to dramatic clothes (Stolovy, 2021). Similarly, the perceptions of formally and neatly dressed appearances in strangers have been associated with the perceived levels of conscientiousness (Albright et al., 1988). The present work replicated these findings, reporting that the preference for essential clothes (which can be characterized by being formal, e.g., shirts, jackets, etc.) correlated with two out of the three facets of conscientiousness (i.e., organization & productiveness) and with conscientiousness as a whole. Conscientiousness was not correlated with any other clothing factors, although one could argue that had Bonferroni correction not been applied, conscientiousness is related to an aversion towards trendy clothing (i.e., organization & responsibility) and a preference for feminine clothing (i.e., responsibility).

Apart from conscientiousness, Stolovy (2021) noted that extroversion, agreeableness, and openness to experience were related to personal identification with certain styles of clothing. For example, while extraversion was related to owning more urban clothes than casual clothes, agreeableness was related to owning less dramatic clothes than any other style (i.e. casual, romantic, urban, and classic clothes). Openness to experience was related to owning more urban clothes than casual or classic clothes. While these findings may be comparable to the findings from the present work, deviations between the two sets of findings come from the fact that the present work reported negative emotionality to be negatively associated with the preference for essential clothing and that agreeableness was not associated with the liking and owning of any

clothing style. While the present work's findings comment on the various subtleties that characterize the individual differences involved in clothing preference, the present study stands out from previous findings in a major way. Because the factor analysis systematically justified the presence of feminine, essential, comfortable, and trendy clothing styles (each provided with specific representations of clothing styles), these individual differences correlates can be interpreted with further detail and context.

Thirdly, the paper also identified whether certain clothing colors are correlated with each of the Everyday Clothing Preference Factors. The colors red and black, which have been extensively studied in the context of fashion psychology (e.g., Elliot & Niesta, 2008; Frank & Gilovich, 1988) were not associated with any of the Everyday Clothing Preference Factors. This result may be explained by the fact that the superiority of red dresses may only emerge in the context of (sexual) attraction (e.g., Elliot et al., 2010; Sidhu et al., 2021; Greenfield, 2005), perceived level of intelligence, and job competence (Maier et al., 2013), or perceived dominance for both the self and the opponent in the context of sportswear (e.g., Taekwondo *dobok*; Feltman & Elliot, 2011), but not preference towards clothing items *per se* or in preference judgments involving judging the wearer. Similarly, black clothes were predominantly studied in the context of sports clothes (e.g., Elliot & Niesta, 2008).

Lastly, the paper explored a novel domain in aesthetic evaluation, namely the comparison between liking and wanting (e.g., Aharon et al., 2001) in the context of fashion. Specifically, the paper verified that the Everyday Clothing Preference Factors are transferable across three preference types, namely liking and owning, liking but not owning, and owning but not liking. This outcome, by replicating the Everyday Clothing Preference Factors across what is argued to be three related yet also independent evaluative and aesthetic devices (e.g., Chatterjee & Vartanian, 2016), strengthens the reliability and validity of the Everyday Clothing Preference Factors as a shorthand in assessing fashion preference. Furthermore, the fact that the three preference types interact with the Everyday Clothing Preference Factors indicates the need for further research into the specific relationship between liking and wanting in fashion research.

Limitations

First, given that the participants were recruited from the UK and given that fashion decisions may differ across cultural boundaries, future research into the Everyday Clothing Preference Factors should

explore whether the preference structure can be replicated using a broader cultural sample beyond the UK. Second, during data collection, participants gave ratings based on their understanding of a given concept (e.g., the word "cardigan"), as opposed to rating stimuli directly (e.g., a photograph of a cardigan). Finally, the present study did not measure various (social/real-life) contexts that may underlie the preference ratings. These factors may limit the generalizability of the findings.

Towards an Empirical Aesthetics of Fashion

In that fashion is an inevitable aesthetic phenomenon in everyday social life, the introduction of systematic preference research in fashion, as the present paper has reported, provides an important advancement in the study of fashion as an aesthetic object. Specifically, given the complex network of psychological antecedents and consequences of preference judgment (Pelowski et al., 2017) the present work provides a building block for future understandings of fashion behaviors and preferences.

What would an empirical aesthetics of fashion, or an empirical study of fashion as an aesthetic object, entail? Firstly, building upon the present paper's assumption that certain physical characteristics of clothing (i.e., cut-based style and color) can be predictors of preference, future research may explore how other physical characteristics of clothing such as texture, may contribute to preference in fashion. Similarly, while the present work assessed liking and wanting as key aesthetic responses to fashion, future research may also explore aesthetic responses to clothing beyond preference types (e.g., see Hur et al.'s [2022] work on sublimity and beauty; see also Augustin, Wagemans, & Carbon [2012] for an exploration of aesthetic vocabularies used in the context of clothing).

The experience of clothing as a whole does not necessitate an account of preference purely based on object characteristics-based judgments. As previous works in the field of fashion psychology have demonstrated already, fashion involves a variety of processes including social- and self-perceptions, with situational and cultural sources of variance playing crucial roles in one's interaction with clothes (e.g., Mair, 2018). In the context of the present work, the possibilities of how physical and non-physical variables interact with each other in predicting fashion preference would enable a more contextualized and generalizable understanding of everyday clothing preference. Further work can also explore the structure of potential consumers (e.g., who are the people who prefer feminine clothing and essential clothing, but not the other

types? And if such people exist, how can they be characterized?), by adopting a more participant-focused design (e.g., larger number of individual differences variables) and analysis (e.g., cluster analysis). Such participant-focused studies – routed in the present work's findings that focus on cut-based preferences – would be useful in categorizing people into different types and predicting shopping behaviors at the level of the general population.

Importantly, an empirical aesthetics of fashion would ideally assist in better exploring the real-life impact of fashion. Recent works have, for instance, explored how certain characteristics of clothing and people may help explore the sense of comfort in hospital patient gowns (Jankovsky & Park, 2019). In this paper, factor analysis (a common method in aesthetics studies, see for example Rentfrow & Gosling [2003]) was used to study the dimensions of items (rather than the subjects) since the aim of the present work was to explore the preference structure based on cuts before exploring its correlations with individual characteristics (e.g., personality) and other physical attributes (e.g., color). However, an extension of this work with different analytic approaches such as clustering could enable branding and marketing firms to benefit from the research on fashion preference. Specifically, the firms will be better equipped with targeting specific consumers with specific types of clothes. That said, the present analysis does show how the preference for certain factors is related to certain personal characteristics (e.g., gender, age), and such effects can be of interest to branding and marketing firms enabling improved decision-making and resource allocation.

Conclusion

While psychological studies have explored preference behaviors across various aesthetic categories such as art or music the present work focuses on preferences for everyday attire and introduces a novel methodology to explore the preference structure of everyday clothing. A clear, meaningful, and reliable preference structure emerged. This preference structure was further characterized by color characteristics of clothing and self-reported individual differences measures. Given the alignment of these characterizations with those of previously published works, the findings enhanced the interpretation of the preference structure. Furthermore, a short version of the Everyday Clothing Preference Factors questionnaire was generated, which would enable a quick measure of fashion preferences based on clothing cuts. Based on theoretical and

practical implications of the study of preference and based on the already existing works in fashion

psychology, future works can explore ways in which fashion can be studied empirically as a worthy object of

aesthetic research.

Reference

Aharon, I., Etcoff, N., Ariely, D., Chabris, C. F., O'connor, E., & Breiter, H. C. (2001). Beautiful faces have

    variable reward value: fMRI and behavioral evidence. *Neuron*, *32*(3), 537-551.

Albright, L., Kenny, D. A., & Malloy, T. E. (1988). Consensus in personality judgments at zero acquaintance.

    Journal of Personality and Social Psychology, 55(3), 387–395.

Bakker, I., van der Voordt, T., Vink, P., de Boon, J., & Bazley, C. (2015). Color preferences for different

    topics in connection to personal characteristics. *Color Research & Application*, *40*(1), 62-71.

Berridge, K. C., Robinson, T. E., & Aldridge, J. W. (2009). Dissecting components of

    reward:'liking','wanting', and learning. *Current Ppinion in Pharmacology*, *9*(1), 65-73.

Borkenau, P., & Liebler, A. (1992). Trait inferences: Sources of validity at zero acquaintance. *Journal of

    Personality and Social Psychology*, *62*(4), 645-657.

Cattell, R. B., & Saunders, D. R. (1954). Musical preferences and personality diagnosis: I. A factorization of

    one hundred and twenty themes. *The Journal of Social Psychology*, *39*(1), 3-24.

Chamorro-Premuzic, T., Reimers, S., Hsu, A., & Ahmetoglu, G. (2009). Who art thou? Personality predictors

    of artistic preferences in a large UK sample: The importance of openness. *British Journal of

    Psychology*, *100*(3), 501-516.

Chatterjee, A., & Vartanian, O. (2016). Neuroscience of aesthetics. *Annals of the New York Academy of

    Sciences*, *1369*(1), 172-194.

Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis*. Hillsdale, NJ: Erlbaum.

Elliot, A. J., & Niesta, D. (2008). Romantic red: Red enhances men's attraction to women. *Journal of

    Personality and Social Psychology, 95*(5), 1150–1164.

Elliot, A. J., Niesta Kayser, D., Greitemeyer, T., Lichtenfeld, S., Gramzow, R. H., Maier, M. A., & Liu, H. (2010). Red, rank, and romance in women viewing men. *Journal of Experimental Psychology: General, 139*(3), 399–417.

Etcoff, N. (1999). *Survival of the prettiest: The science of beauty*. Anchor.

Eysenck, H. J. (1940). The general factor in aesthetic judgements. *British Journal of Psychology. General Section*, *31*(1), 94–102.

Eysenck, H. J. (1941). The empirical determination of an aesthetic formula. *Psychological Review*, *48*(1), 83–92

Fechner, G. T. (1876). *Vorschule der aesthetik* (Vol. 1). Druck und Verlag von Breitkopf & Härtel.

Feltman, R., & Elliot, A. J. (2011). The influence of red on perceptions of relative dominance and threat in a competitive context. *Journal of Sport and Exercise Psychology*, *33*(2), 308-314.

Frank, M. G., & Gilovich, T. (1988). The dark side of self- and social perception: Black uniforms and aggression in professional sports. *Journal of Personality and Social Psychology, 54*(1), 74–85.

Fox, R. A., McManus, I. C., & Winder, B. C. (2001). The shortened Study Process Questionnaire: An investigation of its structure and longitudinal stability using confirmatory factor analysis. *British Journal of Educational Psychology*, *71*(4), 511-530.

Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*(6), 504-528.

Gutman, J., & Mills, M. K. (1982). Fashion life-style, self-concept, shopping orientation, and store patronage- an integrative analysis. *Journal of Retailing*, *58*(2), 64-86.

Greenfield, A. B. (2006). *A perfect red: Empire, espionage and the quest for the colour of desire*. Random House.

Hofmann, R. J. (1978). Complexity and simplicity as objective indices descriptive of factor solutions. *Multivariate Behavioral Research*, *13*(2), 247-250.

Hur, Y.-J. (2020). An empirical aesthetics of the sublime and beautiful [Doctoral thesis, University College London]. https://discovery.ucl.ac.uk/id/eprint/10091352/18/Hur_10091352_thesis_redacted.pdf

Hur, Y.-J., Gerger, G., Leder, H., & McManus, I. C. (2020). Facing the sublime: Physiological correlates of the relationship between fear and the sublime. Psychology of Aesthetics, Creativity, and the Arts, 14(3), 253–263.

Hur, Y-J., Hallam-Evans, C., Garfen, Y., Baiza, A., Backhouse Spriggs, T., Mircea, M-T., Nagy, O., Pye, E., & McManus, I. C. (2022). Differentiating the visual aesthetics of the sublime and the beautiful; Selective effects of stimulus size, height, and color on sublimity and beauty ratings in photographs. *Psychology of Aesthetics, Creativity, and the Arts*, 10.1037/aca0000480

Jankovska, D., & Park, J. (2019). A mixed-methods approach to evaluate fit and comfort of the hospital patient gown. *International Journal of Fashion Design, Technology and Education*, *12*(2), 189-198.

Johnson, T. W., & Francis, S. K. (2006). Personality factors and dress style tribes of undergraduate students. *Research Journal of Textile and Apparel*, *10*(2), 69-77.

Kaiser, S. B. (1997). *The Social psychology of clothing: Symbolic Appearances in context*. Fairchild Books.

Kanai, R., Feilden, T., Firth, C., & Rees, G. (2011). Political orientations are correlated with brain structure in young adults. *Current Biology*, *21*(8), 677-680.

Kline, P. (2000). *Handbook of psychological testing*. London, Routledge.

Maier, M. A., Elliot, A. J., Lee, B., Lichtenfeld, S., Barchfeld, P., & Pekrun, R. (2013). The influence of red on impression formation in a job application context. *Motivation and Emotion*, *37*(3), 389-401.

Mair, C. (2018). *The psychology of fashion*. Routledge.

McManus, I. C., & Furnham, A. (2006). Aesthetic activities and aesthetic attitudes: Influences of education, background and personality on interest and involvement in the arts. *British Journal of Psychology*, *97*, 555–587.

Minshall, B., Winakor, G., & Swinney, J. L. (1982). Fashion preferences of males and females, risks perceived, and temporal quality of styles. *Home Economics Research Journal*, *10*(4), 369-379.

Moody, W., Kinderman, P., & Sinha, P. (2010). An exploratory study: Relationships between trying on clothing, mood, emotion, personality and clothing preference. *Journal of Fashion Marketing and Management: An International Journal*, *14*(1), 161-179.

Noh, M., Li, M., Martin, K., & Purpura, J. (2015). College men's fashion: Clothing preference, identity, and avoidance. *Fashion and Textiles*, *2*(1), 1-12.

Palmer, S. E., Schloss, K. B., & Sammartino, J. (2013). Visual aesthetics and human preference. *Annual Review of Psychology*, *64*, 77-107.

Pazda, A. D., Elliot, A. J., & Greitemeyer, T. (2014). Perceived sexual receptivity and fashionableness: Separate paths linking red and black to perceived attractiveness. *Color Research & Application*, *39*, 208–212.

Pelowski, M., Markey, P. S., Forster, M., Gerger, G., & Leder, H. (2017). Move me, astonish me… delight my eyes and brain: The Vienna integrated model of top-down and bottom-up processes in art perception (VIMAP) and corresponding affective, evaluative, and neurophysiological correlates. *Physics of Life Reviews*, *21*, 80-125.

Perry, C.D.H. & McArdle, J.J. (1991). An applied comparison of methods for least-squares factor analysis of dichotomous variables. *Applied Psychological Measurement*, *15*, 35-46.

Rentfrow, P. J., & Gosling, S. D. (2003). The do re mi's of everyday life: the structure and personality correlates of music preferences. *Journal of Personality and Social Psychology*, *84*(6), 1236-1256.

Rosenbusch, H., Aghaei, M., Evans, A. M., & Zeelenberg, M. (2021). Psychological trait inferences from women's clothing: human and machine prediction. *Journal of Computational Social Science*, *4*(2), 479-501.

Rosseel Y (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, *48*(2), 1–36.

Sidhu, N., Qualter, C., Higgs, E., & Guo, K. (2021). What colour should I wear? How clothing colour affects women's judgement of other women's body attractiveness and body size. *Acta Psychologica*, *218*, 103338.

Soto, C. J., & John, O. P. (2017). Short and extra-short forms of the Big Five Inventory–2: The BFI-2-S and BFI-2-XS. *Journal of Research in Personality*, *68*, 69-81.

Stolovy, T. (2021). Corrigendum: Styling the Self: Clothing Practices, Personality Traits, and Body Image Among Israeli Women. *Frontiers in Psychology*, *12*, 789720.

Vazire, S., Naumann, L. P., Rentfrow, P. J., & Gosling, S. D. (2008). Portrait of a narcissist: Manifestations of narcissism in physical appearance. *Journal of Research in Personality*, *42*(6), 1439-1447.

Weisberg, Y. J., Deyoung, C. G., & Hirsh, J. B. (2011). Gender differences in personality across the ten aspects of the Big Five. *Frontiers in Psychology, 178*(2), 1–11.

Weng, L.-J., & Cheng, C.-P. (2005). Parallel analysis with unidimensional binary data. *Educational and Psychological Measurement*, *65*, 697-716.