Decoding typicality in apparel products: An investigation of consumer perceptions

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Abstract:

Typicality has drawn considerable interest among academics and practitioners and has been employed by fashion companies seeking to increase consumer interest in 'basic' products. However, limited research on typicality focuses on apparel products, as most studies on this property have focused on other consumer products (e.g. chairs). Based on preference-for-prototype and categorisation theories, the purpose of this study was to investigate consumer perceptions of typicality as an aesthetic property of apparel products. This mixed-methods research identified the mental images consumers have as the prototypes of the apparel categories of pants, jackets, and shirts. This study contributes to the aesthetics, clothing and textiles, and product design literatures by offering insights into the aesthetic property of typicality from the perspective of the consumer. Findings guide apparel brands seeking to further incorporate the aesthetic concept of typicality into their product designs.

Keywords: typicality | apparel | aesthetics | prototype | perceptions

Article:

Introduction

Known as the most innovative fashion company (Fast Company, Citation2013), Uniqlo (https://www.uniqlo.com) has become one of the leading fast fashion brands in the world (Forbes, Citation2019). Despite efforts on product innovation, Uniqlo's success in the retail business is due to its emphasis on basic designs (Fast Retailing, Citation2019). When basics are defined in terms of typicality, they are products that usually convey a high degree of design typicality because they are perceived by the consumer as being closer to the 'most typical product' of the category or prototype (Hekkert, Snelders, & van Wieringen, Citation2003; Whitfield & Slatter, Citation1979). By including 'basic' or 'classic' product assortments in their collections (Kaufman, Citation2016), fashion brands like Uniqlo appeal to consumers' preferences for both typical and novel products.

For creating a basic apparel product, Uniqlo, for example, needs to establish typicality, which requires a standard for comparison that is known as the prototype. Rosch, Mervis, Gray,

Johnson, and Boyes-Braem (Citation1976) defined this concept as the product exhibiting 'the largest number of attributes in common with all other members of the category' (Purcell, Citation1984, p. 191). The more similar a product is to the mental image of the prototype a consumer has, the higher the perceived typicality of that product. Academics have also been interested in aesthetic properties in apparel that provide insights into basics and prototypical images. In this pursuit, DeLong, Minshall and Larntz (Citation2016) identified that previously experienced product property configurations in apparel influence consumers' appraisal of products. Thus, the study of the clothing object begins with a clarification of the product under investigation, which includes the identification of relevant visual elements, such as shape (i.e. silhouette), that are critical in the perception of that product (Fiore, Moreno, & Kimle, Citation1996b). With regard to the property configuration of consumer products, academics suggest that typicality is of importance because of its effects on consumer appreciation of shape (Fiore et al., Citation1996b).

Studies (e.g. Blijlevens, Gemser, & Mugge, Citation2012b) have examined typicality relative to consumer products. For more than five decades, research in cognitive psychology has furthered the understanding of categorisation and the concept of prototype, concluding that typicality is a determinant of aesthetic preference (Blijlevens et al., Citation2012b; Hekkert et al., Citation2003; Leder, Belke, Oeberst & Augustin, Citation2004; Vartanian, Citation2014). Aesthetics research on apparel products has concentrated on product characteristics, such as aesthetic quality (Morganosky, Citation1984), complexity and simplicity (Cox & Cox, Citation2002), design elements (Eckman, Citation1997), garment proportion (DeLong, Kim, & Larntz, Citation1993), as well as those related to categorisation (DeLong & Minshall, Citation1988). However, such studies have not examined the effect of typicality on aesthetic appraisal. Furthermore, a systematic review of prototype development from across academic domains, such as management, human–computer interaction, as well as industrial, design, and education engineering (Menold, Jablokow, & Simpson, Citation2017), revealed that there are limited fashion studies specific to apparel prototypes. Few, if any, academic studies have attempted to determine what typical apparel products look like.

Notwithstanding the importance of typicality, aesthetic properties such as novelty have received more attention than typicality. This is the case within the clothing and textiles literature because fashion trends usually determine what is novel in apparel (Davis, Citation1992). Nevertheless, typicality, rather than novelty, has been found to account for most of the variance explained in aesthetic preference (Martindale, Moore, & West, Citation1988). To address these research gaps, the aim of this study was to investigate the property of typicality in apparel and its effect on consumer perceptions of this property. Based on a multi-level measure of typicality (Tyagi & Whitfield, Citation2014), the focus was on the silhouette, which includes the basic parts of the product. Based on the theories of preference-for-prototype (Whitfield & Slatter, Citation1979) and categorisation (Rosch et al., Citation1976), this research explored and identified consumers' prototypes regarding the three apparel categories of pants, jackets, and shirts. Two research questions guided this study:

RQ1: What does a typical apparel product (pants, jacket, shirt) look like?

RQ2: How do different consumers perceive prototypes in apparel products?

The creative process has certain influential components, such as the unconscious (Sternberg & Ben-Zeev, Citation2001) that cannot be controlled by the apparel designer. However, there are other considerations made by the designer that are deliberate (Fiore, Moreno, & Kimle, Citation1996a), such as those that result in a typical product. This study offers theoretical advancement by expanding the understanding of typicality and the concept of prototype in apparel products and its potential effects on consumer preference.

2. Background

As the visual system is the most prominent sensory system (Hekkert, Citation2006), consumer perception is framed in this study as an effect of how visual characteristics of a stimulus are perceived (Berlyne, Citation1974). The stimuli of interest are apparel products, defined as physical garments constructed from fabric (Kaiser, Citation1997), that exhibit aesthetic properties (e.g. typicality), described as the visual characteristics or patterns that relate to the product's appearance (Hekkert & Leder, Citation2008).

2.1 Defining and measuring the property of typicality

Typicality is classified as a 'meaningful' aesthetic property of products (Hekkert & Leder, Citation2008), which relates to internal and external associations of the brain with observed products. It can be inferred that when a consumer evaluates the typicality of an observed product, he or she compares the product with internal associations (the product vs. the idea in the mind of the product's prototype) and external associations (the product vs. other products within the product category) (Whitfield & Slatter, Citation1979). Likewise, Hekkert and Leder (Citation2008) defined typicality and prototypicality as equivalents that relate to individuals identifying things and comparing them with matching prototypes. Drawing from Hekkert and Leder (Citation2008), familiarity is a defining variable of typicality that is associated with 'repetition' and 'expectedness' (Berlyne, Citation1971, p. 106, 168) because familiarity is built through experience (Leder, Belke, Oeberst, & Augustin, Citation2004) and 'resemblances' in structure (Berlyne, Citation1971, p. 108) with something 'viewed before' (Hirschman, Citation1986, p. 29).

A product is deemed familiar when all or a part of it has been seen before, and therefore is easier to be cognitively and affectively processed (Hekkert & Leder, Citation2008). This is the case with many recognised fashion brands that promote the inclusion of specific physical attributes or iconic aesthetic elements in their product designs to connect the dimension of typicality with familiarity. For example, the 'house check' of Burberry (red, tan, white, and black pattern) generates familiarity and, therefore, brand recognition, when consumers perceive products exhibiting these distinct elements. These attributes are often considered the 'brand's stylistic code' (Corbellini & Saviolo, Citation2009, p. 175). Similarly, the brand Ray-Ban has also established signature or iconic products, like the classic 'Aviator' glasses comprised of a typical aviator shape (Luxottica Group, Citation2016), to generate recognition of the brand among consumers. Although academics and practitioners use typicality and familiarity as equivalent terms (Hekkert et al., Citation2003), the latter term relates to something seen in the past, while typicality relates specifically to a familiarity with the prototype (Whitfield & Slatter, Citation1979).

A prototype is also called a 'typical' product (Hung & Chen, Citation2012), 'clearest case', 'best example of a category' (Vartanian, Citation2014; Whitfield & Slatter, Citation1979), 'best

case', or 'exemplar' (DeLong et al., Citation2016, p. 17). Hung and Chen (Citation2012) explored the characteristics of a chair prototype and identified a typical chair as one that has four legs, a vertical back, a flat seat, and usually no arms. Typicality then is goodness of fit (Fiore, Moreno, & Kimle, Citation1996c), goodness-of-example (Hekkert et al., Citation2003; Whitfield & Slatter, Citation1979), or 'the degree to which an object is representative of a category' (Blijlevens, Carbon, Mugge, & Schoormans, Citation2012a, p. 44) because when a product approximately matches the prototype, a state of cognitive consonance is created (Zusne, Citation1986). Consequently, typicality is intrinsically dependent on prototypes; that is, the closer the product is to its prototype, the greater the typicality exhibited by the product.

Yet, how is typicality determined? Hung and Chen's (Citation2012) definition of a 'typical chair' suggests that typicality implies a description of the parts of the product. Similarly, Tyagi and Whitfield (Citation2014) explained how to measure typicality by utilising 'multi-level measures' that separate products into parts because 'products are the sum of their parts, and so too is their typicality' (Tyagi & Whitfield, Citation2014, p. 401). That is, the addition of typical parts in a product creates a whole that is perceived as typical. Thus, for addressing RQ1, the initial question was: what are the basic parts that are associated with typicality in apparel? Attributes related to the surface (e.g. texture) were not considered.

2.2 Categorisation and preference-for-prototype theories

In proposing their taxonomy or categorisation theory, Rosch et al. (Citation1976) claimed that individuals are inclined to make classifications of objects by categories and taxonomies; the former is defined as several objects classified as comparable, and the latter as a system that relates various categories through class inclusion. For example, an artefact that has characteristics of an apparel product can be classified as a 'pant' if the object exhibits certain cues that are connected with the pant category (e.g. parts in the shape of legs). Rosch et al. (Citation1976) concluded that the process of categorisation is not arbitrary, but highly determined, in that basic categories 'carry the most information, possess the highest category cue validity, and are, thus, the most differentiated from one another' (p. 382), while taxonomies become higher-level abstractions in which basic categories are made.

Despite conceptual similarities between categorisation, typicality, and prototypes, there are clear differences. Based on the above, categorisation relates to the action of the brain when classifying objects. Typicality is an aesthetic property inherent to the product. The prototype is a specific product that happens to exhibit the highest level of typicality within a category. This is why categorisation theory is intrinsic to the preference-for-prototype theory, in that the latter assumes that individuals constantly categorise, and in turn, prefer typical objects. Research has confirmed that aesthetic preference has a significant linear relationship with typicality (Hekkert & Wieringen, Citation1990). That is, prototypical stimuli are usually more easily processed than non-prototypical stimuli (Vartanian, Citation2014), perhaps explaining why consumers often prefer the simplest designs (Firth & Nias, Citation1974).

3. Method and results

A mixed-methods research design was utilised to systematically connect qualitative and quantitative methods and address research questions (Meixner & Hathcoat, Citation2019). With IRB approval, the design was divided into three studies (Figure 1): (1) Generating Drawings of

Prototypes; (2) Selecting Prototypes Using a Student Sample; and (3) Selecting Prototypes Using a Non-Student Sample. In the qualitative Study 1, apparel drawings were generated to understand the various prototypes that consumers recall in their minds. Next, the quantitative Studies 2 and 3 involved the identification of one prototype for each apparel category out of the collected drawings.
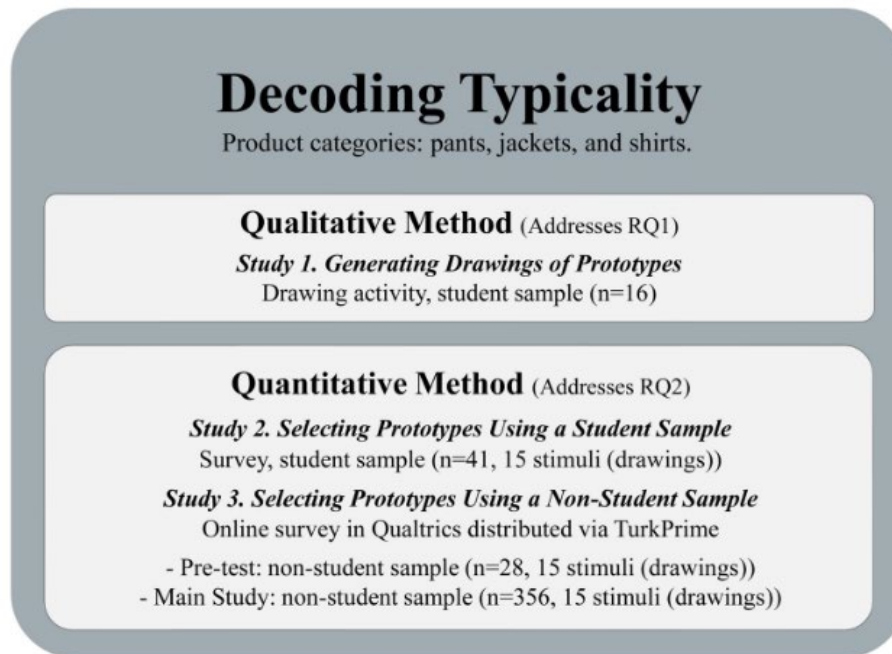

Figure 1. Research design.

3.1 Study 1: generating drawings of prototypes

3.1.1. Selection of type of stimuli

The literature was examined to determine how aesthetics research have utilised stimuli. Dozens of empirical studies were classified by the product stimuli that were used (apparel vs. non-apparel). In apparel studies, most stimuli consisted of drawings of silhouettes or simplified product form representations of products (Cox & Cox, Citation2002; DeLong et al., Citation1993; Eckman, Citation1997; Holbrook, Citation1986; Wang, Chen, & Chen, Citation2008; Yoo, Citation2003), while fewer studies applied apparel photographs (DeLong & Larntz, Citation1980; DeLong & Minshall, Citation1988; Hirschman, Citation1986; Rahman, Citation2012). For non-apparel products, photographs were mostly used (e.g. Hekkert et al., Citation2003), while drawings were useful for testing conceptual product designs (e.g. Diels, Siamatas, & Johnson, Citation2013). Overall, research has utilised both drawings and photographs; however, apparel research has been more prone to use drawings as stimuli. Consequently, drawings were used in the present study. Focus was given to womenswear because it is the top-selling category in the global apparel and footwear market (Euromonitor, Citation2020). Pants, jackets, and shirts were selected because they are among those categories representing the highest sales in fashion products in the U.S. (Bain, Citation2016).

3.1.2 Procedure

After students signed a form for releasing the rights to use the drawings for academic purposes, they were given three blank sheets of paper (one per drawing), a front view sketch of the human body for drawing on a standard size (Bryant & DeMers, Citation2006), and a survey that included demographic questions. As per Hung and Chen (Citation2012), the procedure for determining prototypes consisted of requesting that students draw a sketch for each of the following instructions: (1) Think of 'pants', what is the first image that comes to mind? (2) Think of a 'jacket', what is the first image that comes to mind? (3) Think of a 'shirt', what is the first image that comes to mind?

3.1.3 Respondent characteristics

Data were collected at a mid-size university in the southeastern United States from fashion design students enrolled in a portfolio development class, a class in which they are expected to be able to draw. The convenience sample consisted of 16 female students with ages that ranged from 20 to 50 with the mean age of 25. Students were Black or African American (n = 7, 43.80%) and White (n = 7, 43.80%), and the majority were Juniors (n = 10, 62.50%).

3.1.4 . Results

Visual data consisted of 48 drawings (16 drawings per category). Each set of drawings was assessed by one researcher to classify the most important components (i.e. product parts) present in the drawings, as well as the different classifications per component (Table 1). The other two researchers reviewed the proposed classification until agreement was achieved. Frequency of classifications per component was counted across drawings by utilising content analysis (Julien, Citation2008). For accessing supplementary information of Study 1 please refer to the available document (Ceballos, Hodges, & Watchravesringkan,, Citation2020) that includes the collected visual data, a detailed account of the respondent characteristics, and a preliminary analysis used for the creation of Table 1.

Results of the content analyses of the drawings in Table 1 allowed for the identification of the most typical products per category. The most typical pants usually included a skinny leg style, fly, waistband, high waistline, rounded pockets, and no visible stitching. The most typical jackets had long sleeves, waist-length, no pockets, and visible buttons. The most typical jackets were comprised of standard lapels (notch or step lapel) or a Mandarin collar. The most typical shirts had short sleeves, round neck, and no button placket. Consequently, as presented in Table 2 and used in Study 2, out of the 48 drawings (16 pants, 16 jackets,and 16 shirts), 15 drawings (five drawings per category) were designated as the most typical.

Table 1. Content analysis of drawings (n = 16) – Study 1.

Category	Components	Classification	Frequency	%	Prototype Mode
Pants	Leg style	Skinny	**7**	**43.70**	Skinny
		Straight	5	31.20	
		Boot cut	4	25.00	
	Pockets	Rounded pockets	**10**	**62.50**	Rounded pockets
		Patched pockets	2	12.50	
		No pockets	4	25.00	
	Fly	With fly	**14**	**87.50**	With fly
		No fly	2	12.50	
	Waistband	With waistband	**14**	**87.50**	With waistband
		No waistband	2	12.50	
	Waistline height	Low-medium waistline	4	25.00	High waistline
		Medium waistline	3	18.70	
		High waistline	**8**	**50.00**	
	Stitching	Visible stitching	3	18.70	No stitching
		No stitching	**13**	**81.20**	
Jacket	Lapels (jacket collar)	With hood	1	6.20	Standard lapels and mandarin collar
		Wide lapels	2	12.50	
		Standard lapels	**5**	**31.50**	
		No lapels high neck	1	6.20	
		Mandarin collar	**5**	**31.20**	
		Short lapels	2	12.50	
	Buttons	No buttons	6	37.50	With buttons
		With buttons	**10**	**62.50**	
	Pockets	No pockets	**7**	**43.70**	No pockets
		Breast pocket	1	6.20	
		Besom pockets	2	12.50	
		Hoody pockets	1	6.20	
		Patch pockets	1	6.20	
		Flat pockets	4	25.00	
	Length	Short-length	4	25.00	Waist-length
		Waist-length	**10**	**62.50**	
		Thigh-length	2	12.50	
Shirts	Button placket	With button placket	3	18.70	No button placket
		No button placket	**13**	**81.20**	
		Round	**9**	**56.20**	
	Neck	V neck	4	25.00	Round
		With collar	3	18.70	
		No sleeve	1	6.20	
	Sleeve	Short sleeve	**10**	**62.50**	Short sleeve
		Long sleeve	5	31.20	

Note: Highest values are in bold.

Table 2. Summary of Results – Studies 1, 2 and 3.

Study 1: Student sample (n = 16)				Study 2: Student sample (n = 41)			Study 3: Non-student sample (n = 356)		
Category/Drawing		Frequency	%	SD	Frequency	%	SD		
Pants				1.40			1.30		
Most typical drawing #1 (skinny jeans)		**17**	**41.50**		**124**	**34.80**			
Most typical drawing #2 (boot cut jeans)		3	7.30		30	8.40			
Most typical drawing #3 (straight slacks)		8	19.50		121	34.00			
Most typical drawing #4 (skinny jeans with reinforced fly)		11	26.80		52	14.60			
Most typical drawing #5 (boyfriend jeans)		2	4.90		27	7.60			
Missing					2				
Jackets			1.00	48		1.81			
Most typical drawing #1 (three-button notch lapel jacket)		1	2.40		28	.56			
Most typical drawing #2 (one-button notch lapel jacket)		3	7.30		60	13.50			
Most typical drawing #3 (one-button notch lapel fitted jacket with pockets)		**21**	**51.20**		**167**	7.90			
Most typical drawing #4 (Mandarin collar zipped jacket)		5	12.20		**52**	16.90			
Most typical drawing #5 (Mandarin collar buttoned jacket)		11	26.80		1	**46.90**			

Table 2. *(continued)*

Study 1: Student sample (n = 16)		Study 2: Student sample (n = 41)			Study 3: Non-student sample (n = 356)		
Category/Drawing		Frequency	%	SD	Frequency	%	SD
Missing							
Shirts				1.00			1.07
Most typical drawing #1 (long sleeve button-down shirt)		3	7.30		17	14.60	
Most typical drawing #2 (short sleeve V-neck t-shirt)		**20**	**48.80**		**135**	.28	
Most typical drawing #3 (short sleeve crewneck t-shirt)		13	31.70		108	4.80	
Most typical drawing #4 (long sleeve hidden button-down shirt)		1	2.40		71	**37.90**	
Most typical drawing #5 (short sleeve round-neck t-shirt)		4	9.80		25	30.30	

3.2 Study 2: selecting prototypes using a student sample

3.2.1. Procedure

The five most common drawings of pants, jackets, and shirts (Table 2) were included in a survey. Respondents were asked to select the one product drawing that most closely resembled their mental image of the prototype. Demographic information was then asked. To address face validity (Nevo, Citation1985), minor changes were made before distribution based on feedback from three apparel designers.

3.2.2. Respondent characteristics

The convenience sample consisted of undergraduate students at the same university as Study 1, none of whom participated in the previous study. Forty-one students participated in Study 2. The majority of the sample was comprised of 40 females (97.60%). The ages ranged from 19 to 36 with the mean age of 22.60. Most participants were White (n = 22, 53.70%) and Black or African American (n = 15, 36.60%). All participants were Seniors (n = 41, 100%) and the majority specified a monthly income of \$300–\$499 (n = 14, 34.10%) and \$500–\$749 (n = 11, 26.80%).

3.2.3. Results

In Table 2, most students indicated the most typical drawing $\#1_{\text{skinny jeans}}$ (n = 17, 41.50%) and the most typical drawing $\#4_{\text{skinny jeans}}$ with reinforced fly (n = 11, 26.80%) as the pant prototype. The majority of students selected the most typical drawing #3one-button notch lapel fitted jacket with pockets (n = 21, 51.20%) and the most typical drawing #5Mandarin collar buttoned jacket (n = 11, 26.80%) as the jacket prototype. The highest percentage of students selected the most typical drawing $\#2_{\text{short sleeve}}$ V-neck t-shirt (n = 20, 48.80%) and the most typical drawing #3short sleeve crewneck t-shirt (n = 13, 31.70%) as the shirt prototype. In general, students were more inclined to choose shirt prototypes in the form of t-shirts rather than button-down shirts. Some students tended to select the pant prototype in the form of jeans instead of pants: the most typical drawing #4skinny jeans with reinforced fly was the second most popular option (26.80%). For accessing supplementary information of Study 2 please refer to the available document (Ceballos, Hodges, & Watchravesringkan, Citation2020) that includes preliminary analysis used for interpreting results and a detailed account of the respondent characteristics.

These results may be explained by the demographic of the sample because students usually wear jeans and t-shirts more frequently than slacks and button-down shirts. Perhaps, their minds associate apparel categories with what they are most familiar with. This result suggests that typicality is related to familiarity due to experience (Leder et al., Citation2004) and repetition (Berlyne, Citation1971). However, DeLong et al. (Citation2016) suggested for apparel that 'as individuals are exposed to examples exhibiting different property configurations their concept structure may be modified' (p. 25). Hence, the following empirical question was explored in the next study: Would prototypes be different for a non-student sample?

3.3 Study 3: selecting prototypes using a non-student sample

3.3.1. Procedure

A survey was created in Qualtrics, an online survey tool, and distributed via convenience sampling in TurkPrime, an Internet marketplace by Amazon. The survey started with the consent form and demographic questions with filters that discarded males and full-time or part-time students without employment. Respondents were then requested to select the prototypes as in Study 2, before a validation code for collecting a small incentive was provided. A pre-test was performed with a convenience sample of 28 females. The ages ranged from 22 to 66 with the mean age of 37.40. After data were analysed, no changes were made to the main study survey.

3.3.2 Main Study: respondent characteristics

A final convenience sample consisted of 356 female respondents. The ages ranged from 19 to 72 with the mean age of 37.16. The majority of participants were White (n = 277, 77.80%), followed by Black or African American (n = 38, 10.70%). The majority of respondents were employed or self-employed (n = 271, 76.10%) or stay-at-home wives/mothers (n = 56, 15.70%). In addition, about 54% reported a household income between $35,000 and $74,900.

3.3.3. Main Study: results

In Table 2, most non-students selected the most typical drawing #1$_{\text{skinny jeans}}$ (n = 124, 34.80%) as the pant prototype, followed by most typical drawing #3$_{\text{straight slacks}}$ (n = 30, 8.40%). The majority selected the most typical drawing #4$_{\text{Mandarin collar zipped jacket}}$ (n = 167, 46.90%) as the jacket prototype, followed by most typical drawing #3one-button notch lapel fitted jacket with pockets (n = 60, 16.90%). The highest percentage selected the most typical drawing #2short sleeve V-neck t-shirt (n = 135, 37.90%) as the shirt prototype, followed by most typical drawing #3short sleeve crewneck t-shirt (n = 108, 30.30%). Additional analyses revealed that age ranges of non-students between 18 and 35 years, as well as 56 and 66 years, selected the most typical drawing #1 (similar to a jean) as the pant prototype. In contrast, those between 36 and 55 years, as well as older than 66 years, selected the most typical drawing #3 (similar to slacks) as the pant prototype. Despite the highest standard deviation (SD) among categories reported (1.81), all age ranges of non-students selected the most typical drawing #4$_{\text{Mandarin collar zipped jacket}}$ as the jacket prototype. Pants reported a lower SD (1.30), however, respondents selected both the most typical drawings #1$_{\text{skinny jeans}}$ and #3$_{\text{straight slacks}}$. Even though shirts reported the lowest SD (1.07), there was no agreement among age ranges, as different age ranges selected the most typical drawings #2, #3, or #4 (similar to t-shirts and button-down shirts).

In summary, in Study 3, shirts reported the lowest SD (1.07)—the highest consistency,—but respondents selected the highest number (three) of shirt prototypes (#2, #3, and #4) as compared to jackets and shirts. Pants reported a higher SD (1.30) than shirts but respondents agreed on two pant prototypes (#1 and #3). Lastly, jackets reported the highest SD (1.81) among categories—the lowest consistency—but respondents agreed on the lowest number (one) of jacket prototypes (#4) as compared to the number of pants and shirt prototypes selected. Interestingly, the lower the consistency in responses per category, the smaller the number of prototypes selected. It appears that non-students have more consistent ideas of prototypes of jackets and pants as

compared to shirts. Perhaps the wide variety of shirts in the market (long vs. short sleeves, t-shirt vs. button-down shirts, etc.) generates multiple shirt prototypes in the minds of respondents. For accessing supplementary information of Study 3 please refer to the available document (Ceballos, Hodges, & Watchravesringkan, Citation2020) that includes preliminary analysis used for interpreting results and a detailed account of the respondent characteristics.

4. Integration of results and discussion

Further data analysis determined whether the prototypes selected by the non-student sample (Study 3) were consistent with the selection provided by the student sample (Study 2). In Table 2, both students and non-students selected the most typical drawing #1 (similar to jeans) as the prototype for pants and the most typical drawing #2 (similar to t-shirt) as the prototype for shirts. As for the jackets, while students reported the most typical drawing #3 (jacket with lapels) as the prototype, non-students reported the most typical drawing #4 (jacket without lapels). Whereas there was agreement among students and non-students regarding pant and shirt prototypes, disagreement was found regarding the jacket prototype. Prototype results from Study 2 were not surprising, as students tend to wear jeans (see the most typical drawings #1 and #4), jean jackets (see the most typical drawings #3 and #5), and t-shirts (see the most typical drawings #2, #3, and #5). However, prototype results from Study 3 were not predicted, as the age range of respondents varied from 18 to 72 (mean age of 37.16 years), but the majority of respondents chose jeans as the pant prototype (n = 176, 49.40%) and t-shirts as the shirt prototype (n = 268, 75.20%).

Similar results were identified in the results by age range in Study 3. As in Study 2, most respondents from Study 3 with ages between 18 and 35 years, as well as 56–65 years, chose jeans (most typical drawing #1) as the pant prototype. In contrast, as with Study 2, respondents from Study 3 with ages between 36 and 55 years old chose slacks (most typical drawing #3) as the pant prototype. That is, younger consumers in Study 3 chose pant prototypes more similar to jeans, while older consumers chose pant prototypes more similar to slacks. For jackets, all age ranges chose the same prototype, the most typical drawing #4Mandarin collar zipped jacket. In the case of shirts, most non-students with ages between 18 and 45 years chose t-shirts (the most typical drawings #2 and #3) as the shirt prototype. In contrast, non-students aged between 46 and 65 years chose a button-down shirt (most typical drawing #4) as the shirt prototype. While younger consumers chose t-shirts as the shirt prototype, older consumers chose button-down shirts.

The selection of pant prototypes in Study 2 reported the highest SD (1.40), followed by jackets and shirts (SD = 1.00). In Study 3, the highest SD was reported for jackets (1.81), followed by pants (SD = 1.30), and shirts (SD = 1.07). The overall SD in the prototype selection was lower in Study 2 than Study 3 ($SD_{Study2} = 1.13 < SD_{Study3} = 1.39$). The disparity in the selection of prototypes indicates that students have more consistent responses toward prototypes for jackets and shirts than those of pants, while non-students have more consistent responses toward prototypes for shirts than those of pants and jackets. That is, students agreed more often than non-students on the prototypes they have in their minds about pants, jackets, and shirts. As for non-students, the respondents did not agree on the prototypes of pants and shirts, and only agreed on the jacket prototype. A plausible explanation is that for most categories, the higher the sample heterogeneity, the higher the SD in prototype selection, and therefore, the higher number of prototypes selected. The characteristics of the non-student sample (Study 3) are more heterogeneous than those of the student sample (Study 2). There are two main reasons for this. First, the non-students' overall age range was wider than the students' (Age range$_{Non-Student}$

~sample~ = 18–66 years and more > Age range~Student sample~ = 19–36 years). Second, the non-students were geographically located throughout the U.S., while the students were located in the same Southeastern city of the U.S. It is therefore understandable that there would be more variety in prototypes.

Another reason for the variety in prototypes selected in Study 2 compared to Study 3, may be explained by how fashion brands exhibit products on their websites: many online retailers, such as Zara and Express, display women's products under the terms 'tops' and/or 'bottoms'. The tops include apparel products that can be worn on the top part of an outfit (tops, blouses, button-down shirts, tunics, t-shirts, etc.) and the bottoms cover those categories that can be worn below the waistline (jeans, dress pants, casual pants, leggings, shorts, etc.). Perhaps the different display of products across fashion retailer websites has influenced the 'criteria for collective response patterns' and the coding system for apparel (DeLong & Minshall, Citation1988, p. 13). Correspondingly, apparel merchandise classifications on websites may be starting to blur boundaries between certain categories, so it is simpler for consumers to recognise an overarching category that includes all products to be worn on the top or bottom part of an outfit. This reflects the categorisation theory, in that findings suggest that respondents more often recall certain basic categories of apparel in terms of a specific taxonomy with which they are more familiar.

5. Conclusions and implications

Framed in a multi-level measure of typicality (Tyagi & Whitfield, Citation2014), this mixed-methods research aimed to better understand how the property of typicality applies to apparel products, and specifically concerning the silhouette of the categories of pants, jackets, and shirts. Thus, a typical apparel product (i.e. prototype) was comprised of a silhouette with parts that are considered typical (e.g. pockets in pants). To address RQ1, drawings were generated, and elements of silhouettes identified. To address RQ2, prototypes were selected for pants, jackets, and shirts by both student and non-student samples. Results indicated that the most typical pant silhouettes include elements such as skinny leg style, fly, waistband, high waistline, rounded pockets, and no visible stitching. The most typical jackets had long sleeves, waist-length, no pockets, and visible buttons. The most typical jacket silhouettes were comprised of standard lapels (notch or step lapel) or a Mandarin collar. Lastly, the most typical shirt silhouettes had short sleeves, round neck or V-shaped neck.

It is important to note that students drew and selected t-shirts instead of button-down shirts as the shirt prototype and jeans instead of slacks as the pants prototype. However, when considering both students and non-students, younger consumers (18-45 years old) chose pant prototypes more similar to jeans, while older consumers (46-65 years old) chose pant prototypes more similar to slacks. Most consumers chose a jacket prototype without lapels and no pockets. While younger consumers chose t-shirts as the shirt prototype, older consumers chose button-down shirts. In general, a student sample selected prototypes similar to those selected by a non-student sample for the categories of pants and shirts, but not for jackets. Thus, younger vs. older consumers perceive a specific pant and shirt to be representative of the category (i.e. prototype) to differing degrees.

When interpreting findings through the lens of categorisation theory, prototypes of basic categories may vary by familiarity with those categories, similar associated categories, and related taxonomies. Because of the way the fashion industry frequently presents apparel online, it is likely that consumers associate various categories (e.g. leggings, slacks) of a taxonomy (e.g. bottoms)

within one single basic category (e.g. pants). Thus, it appears that consumers consider the taxonomy when thinking of a particular basic category of apparel. Despite conceptual differences, consumers sometimes do not distinguish between certain basic categories vs. taxonomies (e.g. pants vs. bottoms). Prototypes are then associated with the product images consumers are familiar with, even if in practice those products are classified in the taxonomy or a different basic category. Thus, the prototype acts as a pattern or abstraction embedded in the mind that is not always tied to a specific category or taxonomy (e.g. shorts were drawn as pants).

5.1 Theoretical contributions

Results illustrate how apparel prototypes are represented in the mind of consumers. These abstractions are usually assumed in the literature but have yet to be explicitly examined. Accordingly, a primary conceptual contribution of this article is that of 'delineating' (MacInnis, Citation2011) by depicting and describing prototypes in apparel products. As previous research on product typicality has yet to explain why differences in categories exist (Tyagi & Whitfield, Citation2014), findings in this study add to the body of knowledge by identifying which parts are more relevant in eliciting typicality perception with respect to apparel products. Additionally, this study extends the literature on categorisation and preference-for-prototype theories. Category formation is expected to differ by the environment, including cultural context. However, results suggest that even consumers from similar environments can have different abstractions of products per age and what they are familiar with. Despite apparel prototypes being easily generated by participants, the process of depicting and selecting a prototype revealed some measure of confusion regarding basic categories and taxonomies, which points to the subjectivity of typicality. This idea of category confusion is an issue that has yet to be considered within the literature because the preference-for-prototype theory suggests that consumers have the correct prototype in their minds when evaluating a product's typicality. It appears that typicality may be less accurately measured in categories in which there is category confusion such as apparel. Because prototypes are intrinsically related to typicality, findings of this study contribute to the aesthetics, clothing and textiles, and product design literatures by broadening the understanding of this aesthetic property.

5.2 Managerial implications

A better understanding of consumer prototypes can be useful to brands seeking to incorporate typicality into their product designs and collections. Findings reveal that more prototypes are associated with certain basic categories in heterogeneous target markets. To better connect with different types of consumers and their divergent prototypes or prototype images of products, brands should understand what their target market is familiar with when creating designs, especially in collections of basic items, as they constitute a profitable business (Fast Retailing, Citation2019). Moreover, results suggest that the products with a greater number of parts (e.g. pockets) associated with a category (e.g. jackets) are more likely to be perceived as highly typical by the consumer. Thus, designers that incorporate parts perceived as typical will create a product with a desired level of typicality. Consumer prototypes could therefore be deducted from historical sales data of specific markets. As prototypes are context-dependent, their selection can be adjusted per resulting sales, particularly for a brand's new market entry, and should be reviewed periodically, as prototypes can change over time.

5.3 Limitations

A limitation of the study has to do with the characteristics of the drawings used as prototypes. Stimuli addressed only part of the spectrum of typicality because the focus was given to the silhouette. Future studies may consider variations of materials, colours, and texture, as well as consideration of other categories.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

Data sets associated with this paper can be requested to the corresponding author.

Additional information

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