FEMALE HAIRSTYLE OF SERVICE WORKERS AS A STEREOTYPE TRIGGER

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ABSTRACT

The present work investigated the ability of female hairstyle, as a solitary visual cue, to affect observer inference of wearer occupation, personality, desirability for hiring, and influence ratings on estimated attributes in a service scenario. Faceless pencil drawings of five female hairstyles were presented to respondents at websites, and they clicked the occupation or personality they intuited for each hairstyle from a choice list. For a hiring scenario, respondents ranked hairstyles in order of hiring preference. In a service scenario, respondents rated hairstyles on competency, interpersonal warmth, and anticipated service satisfaction. Hairstyle significantly predicted estimated service occupation and personality. Also, significant differences were found among the hairstyles in a hiring scenario, and for the rated attribute of interpersonal warmth in a service encounter scenario. Only hairstyles typical of young, white women were investigated. Inferences from a combination of hairstyle with other visual elements (such as face, clothing, and accessories) were not explored. Respondent samples were largely female. Results indicate consumers have visual expectations for female hairstyle in the studied service occupations. This effect carried forward into the hiring scenario, suggesting a hiring bias based on hairstyle. It is recommended that service providers pre-test their personal photos for communication effect before posting at provider websites, LinkedIn or Facebook.

Keywords: social cognition, impression formation, relationship marketing, service encounter

INTRODUCTION

The internet has greatly facilitated service provider communication to potential clients. Providers may post credentials, testimonials from past clients, photographs of physical facilities and personal photographs of the provider and staff at a provider website. Potential clients may visit the site of the provider (and competitors) during the information search phase for their service need. The importance of this "pre-core" service encounter period has recently been emphasized because it has the effect of leading potential clients to engage with the service provider in the "core" service encounter (Voorhees et al., 2017).

Of the elements at a service provider's website, personal photographs of the provider and staff and the effect of these photographs on potential clients are particularly intriguing. Posting personal photographs at websites enhances social presence (the extent to which visitors to the site perceive another as psychologically present) and the photos may lay a foundation for relationship marketing (Gefen & Straub, 2004). However, personal photos at a provider's website may entail some risk to the provider. Observers spontaneously form trait judgments about another from facial appearance (Klapper, Dotsch, van Rooij & Wigboldus, 2016) and this process requires only 100 milliseconds (Willis & Todorov, 2006). In a sample of 535 people, 75% reported that it was possible to know some (or all) of a person's personality traits from reading their face (Hassin &

Trope, 2000). The outcome of this face reading process could be favorable (or not) for the service provider.

The inference process referred to above is not limited to individual traits intuited piecemeal; stereotypes may be employed as well, and they have a far richer set of associations (Fiske, 1993). The essence of stereotyping is that a person is categorized as belonging to a particular group based on the perceived presence of a common characteristic (ethnicity, gender, body type, occupation, etc.) and then characteristics associated with that group are attributed to the person rather than assuming individual variation. Perhaps the most pernicious effect of stereotyping is that characteristics attributed to a person in error have been demonstrated to alter subsequent interaction between observer and target in such a way as to confirm the initial erroneous attribution (Snyder, Tanke & Berscheid, 1977). Within the pre-core service encounter context, the implication is that a stereotype triggered by a personal photograph or other stimulus at a service provider's website could have an unfavorable effect, causing the potential client to remove the provider from consideration or modifying initial interaction between the two.

There is a body of research based on consumer first impressions of un-met service providers (Bebko, Sciulli & Garg, 2006; Dean, 2021; Krishnan, Niculescu & Fredericks, 2019; Naylor, 2007; Vilnai-Yavetz & Rafaeli, 2011), but the photographic or video stimuli used in these studies was 'rich' content material. That is, stimuli included faces, clothing, and accessories. The present investigation is focused on the ability of a solitary visual cue, female hairstyle, to influence observer inferences and activate stereotypes. This is a relatively 'lean' content stimulus. Still, the premise for the current work is that female hairstyle alone will be enough to trigger inferences and stereotype attributions about the wearer of the style. This premise is explored in a pre-test and series of four studies. Female hairstyle was chosen as the focus because it is more variable than male hairstyle, and because female hairstyle is generally considered to be expressive of the individual. Additionally, a recent review of stereotypes in services has called for investigation of more subtle stereotype triggers (Fleischer, 2020) and female hairstyle has not previously been investigated as a stereotype trigger within a services marketing context.

BACKGROUND

Stereotypes in Services Marketing

The literature on stereotypes in services marketing has tended to focus on stereotypes applied to employees based on a relatively few broad categories. These categories include: gender (Pinar, Wilder, Shaltoni & Stuck, 2017; Smith, Martinez & Sabat, 2016), obesity (Smith et al., 2016), ethnicity (Krishnan et al., 2019), attractiveness of the employee (DeShields, Kara & Kaynak, 1996; McColl & Truong, 2013), provider nationality (Harrison-Walker, 1995), and employees with tattoos (Arndt, McCombs, Tolle & Cox, 2017).

The effects of the stereotypes mentioned above may be summarized. Men are perceived to offer better service than women (Pinar et al., 2017). Obese women were perceived to rate higher in interpersonal warmth than less heavy women, with no effect for men (Smith et al., 2016). Facial attractiveness of the salesperson significantly affected satisfaction at the time of the service encounter (McColl & Truong, 2013). Salespeople with a same-national accent created higher

purchase intentions than foreign-accented salespersons (DeShields et al., 1996). Managers worry that tattooed employees might impair the image of the business (Arndt et al., 2017). As mentioned earlier, a recent review of stereotypes in services has called for more research on stereotypes based on additional categories and stereotype triggers (Fleischer, 2020).

Effects on Estimated Service Satisfaction

Inferences and stereotypes attributed to unmet service workers have been shown to have practical implications. In the study of Bebko et al (2006), subjects were shown a photograph of a service provider (bank teller, nurse, salesperson) and asked to predict interpersonal and professional skills as well as service quality from the employee. Interpersonal skill judgments were related to predicted provider quality on the dimensions of Responsiveness and Assurance while professional skill judgments were related to predicted outcomes on Reliability, Responsiveness, and Empathy. The study demonstrates that consumers are easily able to estimate service quality based on a static photograph of the service provider.

In the study of Vilnai-Yavetz and Rafaeli (2011), subjects were shown video clips of a male bank employee at a desk who was alternately either slouching, rumpled, and untidy versus a more professional appearance. Engagement intent toward the employee was more favorable in the professional appearance condition. This and the study of Bebko et al (2006) indicate that consumers are, indeed, behaving similarly to their conceptualization as "detectives" in the way they process and organize clues to estimate anticipated service satisfaction (Berry, Wall & Carbone, 2006, p. 43).

Triggers of Inference and Stereotypes

The cues that may trigger trait inference and activate stereotypes include those previously mentioned (gender, obesity, ethnicity, physical attractiveness, and the presence of tattoos) but there are others. First impressions of people may result from a wide variety of other cues, including body language, facial expression, eye gaze, height, hair, and artifacts such as clothing, jewelry, and accessories (Naylor, 2007). Although there is an abundance of potential cues for social cognition and stereotyping, the present investigation is focused on the specific cue of female hairstyle.

Hair as a Cue for Inference and Stereotyping

Hair length and color have been the topic of several studies. The first (Baktay-Korsos, 1999) classified girls from primary schools in Hungary as having either long hair (shoulder length or longer) or short hair, followed by a questionnaire investigating the socio-dynamics of the groups (who do you like best in the class, who is your best friend, who is nicest, and who in the class is most popular). Results showed that longhaired girls were significantly better liked, had more friends, and were perceived as more popular than shorthaired girls. A follow-up study by the same researcher (Baktay-Korsos, 2000) using a bald dress-me-doll activity found that both girls and boys preferred long hair for the girl doll and short hair for the boy doll; however, blonde hair was preferred for the girl doll and brown or black hair was preferred for the boy doll. In a study of inference from hair color using subjects from the Southeastern U.S., Watson, Griggs, and Szeman (2020) photo-shopped hair color (brunette, blonde, red) on the same face (male, female) finding

that redheads, compared to blondes and brunettes, were rated as significantly less attractive, significantly less effective at supervising others, and significantly less likely to be hired. Collectively, these studies indicate a generally favorable effect for long hair for women, and a generally unfavorable effect for red hair for both genders.

The study of Bereczkei and Mesko (2006) differs from the above in focusing on the effect of female hair length and facial attractiveness on the inference of a larger number of personal attributes. The authors photo-shopped different hair styles on the same female face, pre-tested to be either attractive or less so. Their findings confirm a generally favorable influence of long hair across the two face conditions, with the long hair condition having significantly higher ratings than the short hair condition on intelligence, dominance, health, and femininity. This is an important study for the present because it indicates that variability in female hairstyle as the sole visual cue (hair color was not manipulated), may alter inferred traits of the wearer. The present investigation is a logical extension of the study of Bereczkei and Mesko (2006) exploring the possibility that female hairstyle may have additional effects on the social cognition of observers within a services marketing context.

THE CURRENT INVESTIGATION

The present study is a conceptual extension of the work of Bereczkei and Mesko (2006) investigating the influence of female hairstyle on social cognition of the observer within a pre-encounter services marketing context. This line of investigation does not appear to have been previously reported. Yet, it is believed to be worthwhile because if female hairstyle, alone, can influence certain perceived personal attributes, as shown in the work of Bereczski and Mesko (2006), then it is likely that this visual cue affects other attributes more directly related to a services marketing context. If this is the case, then service providers will want to know these effects. Many providers post personal photographs at their business website, on their business cards, or at LinkedIn or Facebook, and prospective customers may come across these photos in their search for a provider. Inferences about an un-met provider are likely important in provider selection during the search phase. If particular female hairstyles have unfavorable effects on inferences and stereotyping, service providers may take pre-emptive action, as hairstyle is a relatively easy physical feature to alter.

The present investigation is limited to female hairstyles typical of young white women. The rationale for this was to exclude ethnic hairstyle as a potential confounding factor. For example, studies indicate that Black women with Afrocentric hairstyles are perceived as less professional than Black women with a eurocentric hairstyle (Mullen, 2020; Opie & Phillips, 2015). Additionally, the 'penalty' imposed for wearing Afrocentric hair was greater when the evaluator was Black as opposed to white (Opie & Phillips, 2015). These findings suggested that including ethnic hairstyles as part of the stimuli could lead to stereotype activation and interactions beyond that of the intended scope of the study.

HYPOTHESES

Based on the current understanding of the social cognition process and stereotyping and the literature cited above, the following hypotheses are proposed. They are based on pencil drawings

of female hairstyles on a faceless white women as stimuli and a list of service occupations or personality profiles to choose from.

H1: Hairstyle will be significantly associated with occupation (evidence for hairstyle activating occupational stereotype).

H2: Hairstyle will be significantly associated with personality profile (evidence for hairstyle activating personality stereotype).

H3: Ranking the hairstyles for hiring preference for a particular service occupation will result in a significant difference in rank sums among the hairstyles.

H4: Rating each hairstyle in a service scenario on the attributes of competency, interpersonal warmth, and anticipated service satisfaction will result in significant differences among the hairstyles.

PRETEST

The pretest was intended as a 'proof-of-concept' that female hairstyle, as a sole visual cue, could trigger an occupation stereotype in the mind of the observer.

Methods

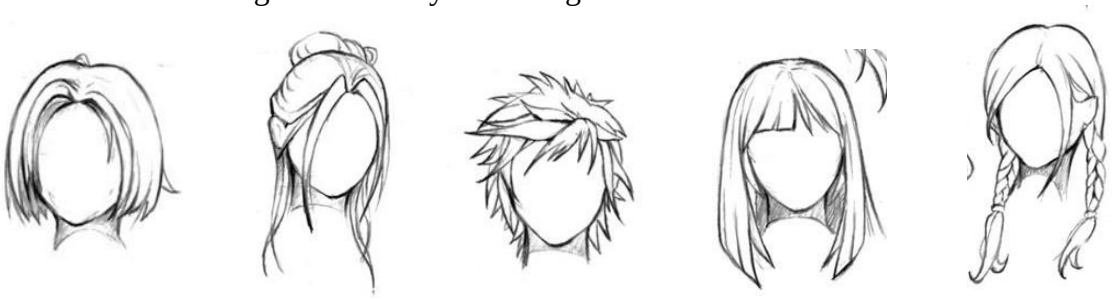
Black and white drawings of female hairstyles were sourced from the public website https://www.deviantart.com/styrbjornandersson/art/manga-girl-hair-reference-sheet-II-20130113-348275702. The webpage is a collection of eight pencil drawings by Swedish artist Styrbjorn Andersson. Five styles were chosen and used for all studies in the current investigation (shown in Figure 1). The artwork is reproduced courtesy of the artist. Conversational labels for the five chosen styles are: mid-length disheveled, long with bun, short pixie-spike, shoulder-length with bangs, and long with braids on both sides. Visually, the hairstyles look somewhat like wigs on a faceless, Styrofoam manikin head.

Hairstyle images were copied from the website and presented individually on paper to a small group of students and staff from the author's institution in the Appalachia area of the U.S. with a list of six service occupations to choose from (shown in Table 1). Subjects were instructed to choose the one occupation from the list they believe most likely for each image, assuming the image could come to life. The images and service occupations were not presented as a matching exercise; subjects could choose the same occupation for multiple images and there was also a "none of the above" choice in the occupation list.

Along with some demographic items, the remainder of the questionnaire asked subjects to think how they came to associate an image with the particular occupation they chose. The answer choices available were the following: a) I really do not know, b) the drawings reminded me of women I have seen in these occupations in my personal experience, c) the drawings look like women in these occupations as depicted in movies and the media, d) I imagined the personality of the woman in the drawing and then tried to match that personality to an occupation, and e) the depicted

hairstyle reminded me of a woman I have known and my emotion toward that person (positive or negative) guided my choice.

Figure 1. Hairstyle drawings used as stimuli for all studies



Note: Artwork is reproduced with permission from the artist, Styrbjorn Andersson. Working labels for the styles are (from left to right): medium length disheveled, long length with bun, short length pixie-spike, shoulder length with bangs, and long length with braids on both sides.

Results

The 16 member sample was 75% female, 44% ethnic minority, and the sample had a mean age of 23.88 years with a standard deviation of 12.42 years.

Questionnaire responses were input into SPSS and analyzed with the asymmetric lambda coefficient, designating hairstyle as the independent variable and occupation as the dependent variable. A crosstabs of hairstyle and occupation is shown in Table 1. The lambda coefficient is a measure of nominal association ranging between 0.0 and 1.0. The coefficient is interpreted as the reduction in error for the dependent variable by knowing the label of the independent variable (similar to R-Squared in regression). For Table 1, lambda is .44 ($p < .001$), indicating a 44% reduction in error of predicting occupation by knowing the hairstyle. In looking at the frequency counts in Table 1, the greatest consensus in associating a hairstyle with a particular occupation is seen for the most expressive hairstyles (short pixie-spike and long with braids on both sides).

There was a general lack of consensus to the multiple-choice question of how the respondent came to associate a particular hairstyle with a particular occupation. One person replied that they did not know, five people said it was through personal experience with women in the listed occupations, four subjects said the drawings looked like how women in those occupations were portrayed in movies and media, four respondents indicated they had imagined the personality of the woman with the hairstyle and tried to match personality with occupation, and two people said the hairstyle reminded them of a women they had known and emotion toward that person guided their choice.

Table 1. Crosstabs of frequency counts for hairstyle stimuli and expected occupation if the hairstyle could come to life, n = 16, Pretest

	Hairstyle				
Occupation	Medium length disheveled	Long length with bun	Short length pixie-spike	Shoulder length with bangs	Long length with braids both sides
Clinical psychologist	6	2	0	6	0
Concierge at upscale hotel	3	3	0	6	1
Barista at Starbucks	2	9	0	1	2
Accountant	5	1	0	3	0
Dog groomer	0	0	2	0	12
Bartender	0	1	10	0	0
None of the above	0	0	4	0	1

Note: Occupation dependent lambda for the crosstabs is .439, $p < .001$

Discussion

The results of the Pretest are consistent with the premise for the investigation, the idea that particular hairstyles, as the sole visual cue, are associated with particular occupations. There appears to be a visual stereotype, in the mind of the observer, for women in service occupations and what the typical hairstyle of a member of that occupation should look like. However, it is unclear how subjects came to associate certain hairstyles with particular occupations, as subjects could not agree on one source. This suggests there may be multiple sources for visual stereotypes.

STUDY 1

This study was designed as an extension of the Pretest, using a larger sample, and changing some of the service occupation choices in an effort to increase generalizability.

Methods

Female hairstyle images were sourced as described in the Pretest. The major change in methods from the Pretest was that the images and associated questions were posted at the survey-hosting site *SurveyGizmo*, and subjects were recruited through e-mail solicitation to visit the site and respond. This was necessary, in part, due to COVID-19 restrictions at the time, but an electronic interface with respondents also facilitated data management, as their responses were easily exported out of the site as an Excel file and imported into SPSS for further analysis.

A list of e-mail addresses was obtained by requesting addresses for all students, staff, and faculty at the author's university (4,985 e-mail addresses, essentially all users of the university e-mail system). Addresses for certain individuals (members of the Institutional Review Board, or others believed to have knowledge of the goals of the study) were deleted from the list. The result was a slightly truncated master list.

To ensure that an e-mail address was used only once and individuals were not solicited for any other studies in this project, addresses were cut from the list in Excel and pasted into the blind carbon copy box in Outlook. This cutting and pasting process resulted in an ever-shrinking list of potential respondents for subsequent studies. Following this protocol made certain that an e-mail address was never reused. Solicitation e-mails were sent out in batches, continuing until an adequate number of responses was obtained.

Results

Of 531 e-mails sent, 70 respondents entered the website and completed the survey, yielding a response rate of 13.18%. Female respondents were 66% of the sample, minorities were 18.6% of the sample, and the sample had a mean age of 35.43 years with a standard deviation of 15.17 years.

Responses were exported out of *SurveyGizmo* in Excel format and imported into SPSS for analysis with the asymmetric lambda coefficient, designating occupation as the dependent variable. A crosstabs of hairstyle and occupation is shown in Table 2. For Table 2, lambda is .28 ($p < .001$), indicating a 28% reduction in error of predicting occupation by knowing the hairstyle. The results support H1, which predicted a significant association between hairstyle and intuited occupation. As in the Pretest, the greatest consensus in associating a hairstyle with a particular occupation is seen for the most expressive hairstyles (short pixie-spike and long with braids on both sides).

Discussion

The results of Study 1 are consistent with those of the Pretest, and both support the general premise for the investigation, the idea that particular hairstyles are associated with particular occupations. Specifically, results from Study 1 suggest that respondents have a visual stereotype for what the hairstyle of a female service worker in a particular occupation should look like. If this were not true, then the frequency counts in each column in Table 2 would be about equal for each row. Clearly, that is not the case, as the frequency counts are clustered in particular rows.

Table 2. Crosstabs of frequency counts for hairstyle stimuli and expected occupation if the hairstyle could come to life, n = 70, Study 1

	Hairstyle				
Occupation	Medium length disheveled	Long length with bun	Short length pixie-spike	Shoulder length with bangs	Long length with braids both sides
Elementary school teacher	33	23	4	24	9
Concierge at upscale hotel	6	22	3	22	2
Punk rock musician	6	3	47	2	1
River raft guide	5	4	9	3	38
Dog groomer	14	13	2	10	15
None of the Above	6	5	5	9	5

Note: Occupation dependent lambda for the crosstabs is .280, $p < .001$

Explained variance in Study 1 (28%) is less than that in the Pretest (44%). Although the same five hairstyle images were used in both, the occupation choices differed between the two, and this might account for a difference in explained variance. A limitation of Study 1 is that respondents were predominately female (66%). Subjects self-selected into the study from e-mail solicitation; apparently, women found the topic of the research more interesting than did men.

STUDY 2

The objective for Study 2 was to investigate whether consumers associate a particular hairstyle with a particular personality profile. If so, this would be evidence for hairstyle, as a visual cue, triggering a personality stereotype in the mind of the observer.

Methods

Hairstyle images were sourced as in Study 1. A series of five personality profiles were constructed based on combinations of Myers-Briggs Type Indicator (MBTI) dimensions and presented with each hairstyle for the association task. The objective in constructing the personality profiles was to generate a diverse mix of traits among the set. The profile statements presented to respondents were the following: a) outgoing, uncritical, live for the moment, dislikes routine, and restless when

still, b) gracious and effective in dealing with others, in-tune with individual needs, and OK with routine, c) true to own ideals, strives for self-identity, and resists being labeled, d) able to inspire and motivate, easily organizes and makes decisions, and e) caring and dependable, does not seek attention, and has a high sense of duty.

Similar to Study 1, a webpage was set-up at *SurveyGizmo* and faculty, staff, and students from the author's university were recruited to go to the survey webpage through an e-mail. In the survey, respondents encountered each hairstyle separately, with instruction to click the personality description from the list they believed most likely for that person. The list of profiles also included a "none of the above" choice. The survey concluded with demographic questions.

Results

Of the 567 e-mails sent, 66 respondents entered the website and completed the survey, yielding a response rate of 11.6%. Female respondents constituted 77% of the sample, and minorities were 10.6% of the sample. The sample had a mean age of 32.83 years with a standard deviation of 14.75 years.

Responses were exported out of *SurveyGizmo* in Excel format and imported into SPSS for analysis with the asymmetric lambda coefficient, designating personality as the dependent variable. A crosstabs of hairstyle and personality is shown in Table 3. The lambda coefficient for Table 3 is .17 ($p < .001$), indicating a 17% reduction in error of predicting personality by knowing the hairstyle label. The frequency counts in Table 3 show much less consensus within columns compared to Study 1, indicating respondents had less agreement in their personality judgments for the hairstyles. Although the lambda coefficient is weaker than in Study 1, it is still highly significant, supporting H2. That is, subjects associate different hairstyles with different personalities.

Discussion

A recurring theme in the results of Studies 1 and 2 is that the most expressive hairstyles (short pixie-spike and long with braids on both sides) have the most consensus among observers in judging occupation and personality profile, respectively. Also, results of both studies support the general premise that female hairstyle is a visual trigger for stereotype activation.

Service provider traits of extroversion, conscientiousness and agreeableness, as perceived by customers, have been found to predict interaction quality within a service encounter (Ekinci & Dawes, 2009). Since subjects in Study 2 were able to intuit personality profiles of the wearer from images of hairstyles, this suggests that visitors to a service provider's website might be inferring personality traits of the depicted provider, based in part on hairstyle, and determining who to keep (or not) in their consideration set.

Table 3. Crosstabs of frequency counts for hairstyle and expected personality if the hairstyle could come to life, n = 66, Study 2

	Hairstyle				
Personality profile	Medium length disheveled	Long length with bun	Short length pixie-spike	Shoulder length with bangs	Long length with braids on both sides
True to own ideals, resists being labeled	6	8	38	3	7
Gracious and effective in dealing with others	11	19	0	19	13
Outgoing, uncritical, live for the moment	12	7	21	4	14
Able to inspire and motivate	12	10	1	19	8
Caring and dependable, but does not seek attention	18	14	2	16	19
None of the Above	7	8	4	5	5

Note: Personality dependent lambda for the crosstabs is .170, $p < .001$

STUDY 3

The objective in Study 3 was to change the context of observation of female hairstyle and inference in two fundamental ways. First, in Study 3, the context is comparative rather than individual evaluation (as in previous studies) because the entire set of five hairstyles was presented as a set for ranking. Second, the context was changed from non-personal to a personal context – respondents were playing the role of a manager ranking job applicants for suitability for being hired as a river raft guide for a business they owned.

It should be mentioned that the goal of Study 3 was not to simulate actual hiring by a manager, as this would require managers as respondents. Rather, the study was designed to explore the effect of female hairstyle as a stereotype trigger in a personal context. The situation resembles how a

consumer might review the images of multiple service providers at different provider websites and then choose a provider for their particular need. In effect, the consumer is 'hiring' the service provider.

Methods

Similar to previous studies, a webpage was set-up at *SurveyGizmo* and faculty, staff, and students from the author's university were recruited to go to the survey webpage through an e-mail. Unlike the previous studies, hairstyle images were presented as a set (with capital letter labels A through E) and respondents were asked to assume the role of a manager and rank the hairstyles (assuming they could come to life) for suitability to be the manager's employee (rank 1 = most desired, rank 5 = least desired). The manager's role was that of owner of a business that provides river raft excursions, hiring a river raft guide.

Results

A total of 670 e-mails were sent, and 69 respondents entered the website and completed the survey, yielding a response rate of 10.3%. Female respondents were 72% of the sample, and minorities were 26% of the sample. The sample had a mean age of 27.57 years with a standard deviation of 11.68 years.

Responses were exported out of *SurveyGizmo* in Excel format and imported into SPSS for Friedman's Rank Sum analysis. Analysis indicated a significant difference among the rank sums ($\chi^2 = 56.06$, df = 4, $p < .001$), see Table 4. The hairstyle most desirable to hire as a river raft guide was long hair with braids on both sides. This is consistent with the results of Study 1, in which a different sample looking at this hairstyle intuited river raft guide as the most likely occupation. Computation of the least significant rank sum difference for use in multiple comparisons (Hollander & Wolfe, 1973, p. 151) was determined to be 50.67, indicating that the long hair with braids style and disheveled style are both significantly more desirable as employees than the long hair with a bun style and the shoulder length hair with bangs style. The results support H3, which posited a significant difference in rank preference in a hiring scenario.

Discussion

The results of Study 3 are interesting in that they reveal a strong influence (arguably a bias) in a hiring situation based solely on female hairstyle. The results support the overall premise that physical appearance of a service provider (and specifically hairstyle) viewed at the website of the provider might affect inclusion of that provider into the consideration set of the viewer for their service need. It remains unclear why the long hair with braids style and disheveled style are significantly preferred over the other styles in a river raft guide. Perhaps these styles connote 'nature' or 'outdoors' in the mind of respondents while the other styles are more associated with 'indoors' activities.

Table 4. Rank sums for hairstyles in a hiring scenario for a river raft guide, if the hairstyle could come to life, n = 69, Study 3

	Hairstyle				
	Medium length disheveled	Long length with bun	Short length pixie-spike	Shoulder length with bangs	Long length with braids both sides
Rank Sum	181	236	191	276	151

Note: The Friedman test Chi-Square for Study 3 is 56.06, $p < .001$, and the least significant difference among rank sums for multiple comparisons is 50.67

STUDY 4

Results from Studies 1 and 2 have suggested that viewing faceless hairstyle images activates stereotypes for occupation and personality, respectively. Further, Study 3 indicates that hairstyle image, in the absence of other information, significantly influences hiring preference for a service provider. The goal of Study 4 was to investigate the effects of hairstyle images more specifically to a service encounter scenario. Similar to Study 3, the context of Study 4 is personal, respondents are judging the hairstyles in a hypothetical service encounter, assuming the hairstyle could come to life, but unlike Study 3, the styles are being judged individually rather than being ranked against each other.

Methods

Similar to previous studies, a webpage was set-up at *SurveyGizmo* and faculty, staff, and students from the author's university were recruited to go to the survey webpage through e-mail. Hairstyle images were sourced as previously described. Respondents were instructed to imagine that each hairstyle they encountered could be the person serving them (the barista) at a Starbuck's coffeehouse. Hairstyle images were presented individually with instructions to rate each style on the following three attributes: competence (competence, job knowledge, and efficiency in performance), interpersonal warmth (interpersonal warmth and sincerity), and anticipated satisfaction with the image as their service provider. Single scales for each attribute were constructed as 'sliders' ranging from 1 to 10 with 0.25 increments and with 1 as the unfavorable end of the scale. Anchors for the scales were as follows: very incompetent/ extremely competent, very cold, insincere/ very warm, sincere, and extremely dissatisfied/ extremely satisfied.

Results

A total of 1,479 e-mails were sent, and 41 respondents entered the website and completed the survey, yielding a response rate of 2.8%. Female respondents were 76% of the sample, and minorities were 27% of the sample. The sample had a mean age of 23.80 years with a standard deviation of 11.14 years.

The response rate for Study 4 is rather low, and lower than that for the previous studies using a similar recruitment method. During the recruitment time period, the author was contacted by the cybersecurity officer of the university to say that security monitoring software had 'read' the survey URL being sent out in the solicitation e-mail as a phishing attempt, and the URL was being automatically disabled. The cybersecurity officer asked the author to cease sending out any more e-mails with the same domain name as the URL. These events appear to explain why the response rate was so low, as the recipient of the e-mail would have to manually copy and paste the URL from the e-mail into a browser to respond, assuming the solicitation e-mail was not shunted into the quarantine folder.

At the time of cessation of recruitment, 41 responses had been obtained. This was a smaller sample size than intended, but the uncertainty of the ongoing cybersecurity issue suggested termination of study enrollment. Responses were exported out of *SurveyGizmo* in Excel format and imported into SPSS for Friedman's Test analysis. This analysis is the non-parametric analogue to One-Way ANOVA with related samples; it does not assume that the dependent variable is normally distributed. It may be applied to either ordinal or interval level data. In Study 3, the data was ordinal, but in Study 4 the data is interval. Separate Friedman's Tests were conducted for each of the three scaled attribute measures. As in One-Way ANOVA, the test is an omnibus flag for a significant difference among any two groups. Results are shown in Table 5.

The Friedman's Test for perceived competence was not significant ($\chi^2 = 9.02$, df = 4, p = .061). However, the test for perceived interpersonal warmth was highly significant ($\chi^2 = 23.25$, df = 4, p < .001). As with One-Way ANOVA, a significant omnibus flag requires post-hoc tests to determine which groups differ from each other. In this context, the post-hoc analysis is the Wilcoxon Signed Ranks Test in SPSS. With five hairstyles, there are 10 possible pair combinations, and so the significance criterion becomes a p-value of less than .005 due to Bonferroni adjustment for the number of planned comparisons. Post-hoc tests for interpersonal warmth indicate that the medium length disheveled hairstyle has significantly less perceived warmth than the shoulder length with bangs style (p = .003) and the long length with braids on both sides style (p < .001). Additionally, the short length pixie-spike style has significantly less perceived warmth than the long length with braids on both sides style (p = .004). The omnibus Friedman Test for anticipated satisfaction with the service was not significant ($\chi^2 = 4.30$, df = 4, p = .367). Accordingly, H4, which proposed significant differences among the hairstyles on all three attributes, is not supported.

Discussion

The results of Study 4 are mixed. On the one hand, there is strong evidence that the hairstyles significantly differ in perceived interpersonal warmth, but this was not true for perceived competency or anticipated service satisfaction. The results may have been influenced by the choice of service scenario. An encounter with a barista at a coffeehouse was chosen to be realistic to respondents who were anticipated to be of relatively young age. However, had the scenario involved the service of a clinical psychologist, a medical professional, or an attorney (service experiences where interpersonal warmth might be weighted more heavily by the consumer) the outcome for anticipated service satisfaction may have been different.

Table 5. Attribute judgments of hairstyles, assuming the style could come to life as the barista serving you at a Starbuck's coffeehouse, n = 41, Study 4

	Hairstyle				
Attribute	Medium length disheveled	Long length with bun	Short length pixie-spike	Shoulder length with bangs	Long length with braids both sides
Competence, job knowledge and efficiency	6.70 1.75	6.63 2.28	7.09 2.36	6.35 2.06	7.18 2.00
Interpersonal warmth and sincerity	6.11 1.89	7.14 2.23	6.33 2.35	6.87 1.95	7.72 1.91
Anticipated service satisfaction	6.72 1.97	6.80 2.00	7.26 2.27	6.71 2.16	7.33 1.99

Note: Cell entries are means and standard deviations, all measures were 1 to 10 scales with 0.25 increment response values. Omnibus Friedman Test results are as follows: Competence (χ^2 = 9.02, df = 4, p = .061), Interpersonal Warmth (χ^2 = 23.25, df = 4, p < .001), Anticipated Satisfaction (χ^2 = 4.30, df = 4, p = .367)

GENERAL DISCUSSION

Responding to a call for investigation of more subtle triggers of stereotypes in services marketing (Fleischer, 2020), the present investigation finds that female hairstyle, as a solitary visual cue, appears to trigger a service occupation stereotype in the mind of the observer (Study 1). This is based on the finding that particular hairstyles were significantly associated with particular occupations for these hairstyles in a non-random way. These results are especially applicable to the pre-core service encounter period (Voorhees et al., 2017), a time when consumers are searching the internet for a service provider. If the photo of the service provider at the provider website, LinkedIn or Facebook, does not match the visual expectation for the provider in the mind of the consumer, the provider might be discarded from the consideration set.

Study 2 presented evidence that female hairstyle, as a solitary visual cue, triggers a personality stereotype for the wearer of the hairstyle. This is also applicable to the pre-core service encounter period. It has been shown that consumer perceived personality traits in the provider (extroversion, agreeableness, and conscientiousness) have a favorable impact on service interaction quality (Ekinci & Dawes, 2009). If a prospective client views a photo of an unmet provider on the internet and infers poor ratings on these personality traits, then the prospective client might never engage the provider.

Unlike Studies 1 and 2, which presented female hairstyles to subjects in a non-personal, categorization activity, Study 3 asked respondents to assume they were the owner of a river raft excursion business, and the five faceless hairstyles were candidates for a river raft guide employee

job. The significant differences found in Study 3 for hiring desirability among the hairstyles suggests a more personal effect of the visual cue – a hiring bias. Additionally, it may be noted that Studies 1 and 3 are consistent with each other, in that the hairstyle most desired to hire as a river raft guide in Study 3 was intuited by a majority of respondents in a different sample in Study 1 to be a river raft guide. This suggests that occupational stereotype activation by the visual cue of hairstyle may have been the basis for hiring bias.

The results of Study 4, however, are mixed and less easily integrated in interpretation with those of earlier studies. This study asked subjects to look at each of the five hairstyles and, assuming the hairstyle could come to life and be their barista at a coffeehouse, rate each hairstyle for perceived competence, interpersonal warmth, and anticipated service satisfaction. Multiple significant differences were found among the five hairstyles on the attribute of perceived interpersonal warmth, but not for the other two measures. The study is interesting for the discovery that female hairstyle can communicate interpersonal warmth within an un-met service provider context. It may be noted that another visual feature that communicates interpersonal warmth, a service provider's genuine smile, has been shown to enhance customer satisfaction in actual service encounters (Barger & Grandey, 2006; Grandey et al., 2005). Perhaps, the genuine smile and certain hairstyles are both visual signals of empathy, one of the dimensions of SERVQUAL (Parasuraman, Zeithaml & Berry, 1988).

The present investigation contributes to our understanding of the pre-core service encounter period (Voorhees et al., 2017), building upon earlier studies which found that consumers readily infer service satisfaction from an un-met provider based on rich-content visual evidence (Bebko et al., 2006; Vilnai-Yavetz & Rafaeli, 2011). However, the current work focused on a lean-content visual cue, female hairstyle alone, as a trigger of inferences and stereotypes about the wearer, extending a line of investigation started by psychologists Bereczkei and Mesco (2006) to a services marketing context.

Managerial Implications

Findings from the current investigation have strong implications for how service providers should manage their website. Many providers post photos of themselves and their staff at a provider website, or on LinkedIn or Facebook, and prospective clients may visit these sites. The present investigation demonstrates that consumers infer traits and stereotypes may be activated by the most minimal of visual cues (female hairstyle), and these inferences and activated stereotypes will likely influence provider choice. Indeed, the present study strongly suggests that relationship marketing (Morgan & Hunt, 1994) defined by the authors as "all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges" (p. 22) probably begins in the pre-core period with consumers viewing a personal photograph of the unmet provider at a website.

It is recommended that service providers carefully screen personal photographs of themselves they post at provider websites or elsewhere to be sure the photo is sending the right message. To do this, providers may utilize the services of Photofeeler.com, a website that allows visitors to post a personal business photo and receive feedback from strangers. Photos are scored on three criterions: competency, likability, and influence. Viewers may also include a text note if they want to

comment on your smile or the background or such. Of course, providers could get similar feedback from family and friends, but comments from these sources may be biased. If screening of a business photo finds hairstyle to be unfavorably perceived, this is a relatively easy physical feature to alter.

Related to the above, a reviewer for this paper raised the issue of what to do with a female service employee with a problematic hairstyle. The crux of the issue is the right of personal freedom and self-expression of the employee versus the right of the employer to protect their business interests. In general, courts have upheld the right of employers to impose grooming requirements and other policies to regulate appearance in the workplace as long as the requirements do not discriminate on the basis of race, gender, religion, national origin, age or disability (Perkins, 2014). Yet, it is unclear if there has been a test case involving the right of an employer to meticulously specify how the hair of a female employee should appear (for example, specifying that one or more hairstyles in Figure 1 are appropriate while others are not). The court might conclude the employer is over-reaching.

Limitations

The current investigation has several limitations. First, only female hairstyles of younger women were studied. Inferences from hairstyles more appropriate to middle-age and older women were not explored. Second, images of ethnic hairstyles were not used as stimuli. This limits generalization of the results. Third, samples obtained for all studies (respondents self-selected into the investigation following a recruitment e-mail) were predominately white women. As a result of self-selection bias, other demographic groups are not well represented, as well as groups for which the topic of the studies was not engaging enough to respond. This limits the ability to generalize results to the overall population. Fourth, since hairstyle was the only cue given for respondent inference, the effects of combining hairstyle with other visual information elements (facial configuration, presence or absence of a smile, clothing, and accessories) are unknown. Fifth, stereotypes may vary across different cultures, limiting generalization of the findings of the present investigation to other cultures. For all of the above reasons, generalization of the results is limited.

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