

I Can Wear a Beard, but you Should Shave . . . Preferences for Men's Facial Hair From the Perspective of Both Sexes

Łukasz Jach, PhD¹  and Marcin Moroń, PhD¹

Abstract

Researchers have found that men's facial hair may have certain signaling functions connected with intrasexual competition and intersexual attractiveness. The interesting issue is whether men's and women's preferences for men's facial hair may be considered a reflection of their intuitive knowledge about these functions. The aim of the presented studies was to analyze women's and men's preferences regarding men's facial hair using questions with a dichotomous answer format (Study 1 and Study 2) and pictorial stimuli (Study 2). In both studies, women were asked to indicate their preferences for men's facial hair. Men were asked to report preferences for facial hair in themselves and in other men, as well as to report their actual appearance of facial hair. The results showed that women's preferences for men's facial hair were ambiguous, while men preferred facial hair for themselves and had a lower inclination to prefer facial hair in other men. It suggests that men may be aware of some aspects of signaling functions of facial hair, especially these connected with intrasexual competition.

Keywords

signaling functions, intrasexual competition, intersexual attractiveness, beard, facial hair, facial attractiveness

Date received: October 18, 2020. Revision Submitted: September 4, 2020; Accepted: September 7, 2020

Introduction

Beardedness is one of the most visually salient and sexually dimorphic features of human secondary sexual traits (Dixson et al., 2005). Facial hair is related to men's success in the marriage market (Barber, 2001), but it still remains puzzling whether beardedness is primarily an attractive ornament for women or a badge of status between men (Kordsmeyer et al., 2018; Puts, 2010). In terms of visually conspicuous and sexually dimorphic secondary sexual trait development (e.g. beards), men rank similarly to male nonhuman primates with polygynous mating systems (Dixson et al., 2005), large social group sizes and multilevel social organizations (Grueter et al., 2015). These conditions favor sexually selected ornaments that signal social status and dominance involved primarily in male-male competition and potentially secondarily in attractiveness to females.

Female preferences for male facial hair are ambiguous (see: Oldstone-Moore, 2015). Some reports indicate that women prefer male faces with distinct facial hair (Dixson & Rantala, 2016; Janif et al., 2014). According to others, clean-shaven faces and the ones with a moderate amount of facial hair are

preferred, while distinct facial hair is considered less attractive (e.g. Neave & Shields, 2008; Wogalter & Hosie, 1991). Beardedness is an obvious biological marker of sexual maturity (Alwaleedi, 2015; Randall, 2008). However, it is generally unrelated to health and provides little survival advantage (Dixson et al., 2016). Men with facial hair are perceived by women as older, having a higher social status and better parental skills (Dixson & Brooks, 2013; Dixson, Kennedy-Costantini, et al., 2019; Reed & Blunk, 1990), which are the characteristics women find desirable in long-term romantic partners (Penton-Voak & Perrett, 2000). Accordingly, female preferences for male facial hair are stronger for long-term relationships and fathering conditions than short-term relationships (Stower et al., 2019). Beards

¹ Faculty of Social Sciences, University of Silesia, Katowice, Poland

Corresponding Author:

Łukasz Jach, PhD, Faculty of Social Sciences, University of Silesia, Grażyńskiego Street 53, Katowice 40-126, Poland.
 Email: lukasz.jach@us.edu.pl



may be considered by females a signal of fathering abilities, masculinity, dominance and age, but not attractiveness (Dixson et al., 2019). However, women also associate male facial hair with aggressiveness and inclination to dominate (Addison, 1989; Neave & Shields, 2008), which are undesirable psychological characteristics in partners, especially in long-term relationships (Perrett et al., 1998).

Women's preferences for male facial hair are also contextualized. They depend on the operational sex ratio (the fewer men there are, the more preference is given to facial hair; see Barber, 2001), the proportion of clean-shaven and bearded men in the general population (the less frequently a certain facial appearance occurs, the more preference is given to it; see Janif et al., 2014), mating strategy (Stower et al., 2019), human development indices and education indices in a particular country (Dixson et al., 2019; Marcinkowska et al., 2019) and the density of population and the size of the city (Dixson et al., 2017). The ambiguity and contextualization of women's preferences regarding male facial hair was one of the aspects that made the researchers shift their attention toward the primary role of male facial hair in intrasexual competition (Puts, 2010).

One concept assumes that male facial hair may perform functions similar to a lion's mane in direct physical confrontation, which consists in cushioning blows dealt with fists or blunt weapons to the cheek and jaw area (Blanchard, 2009). However, research conducted in connection with this approach did not confirm significant relationships between facial hair and an increased probability of winning in physical combat (Dixson, Sherlock, et al., 2017). Nevertheless, men perceive male faces with facial hair as more aggressive than shaven ones (Addison, 1989; Dixson & Vasey, 2012), which suggests that facial hair may prove useful, if not in direct confrontation, then at least as a deterrent for potential rivals from engaging in it. Facial hair is also a signal of a high social status for other men (Dixson & Vasey, 2012). From an evolutionary point of view, entering into conflict with a high-status individual is highly risky due to the fact that the latter may have allies and influences which could be used in the confrontation. Growing facial hair may also mask a low degree of facial masculinization (Dixson et al., 2016), while its styling may contribute to an increased impression of masculinization by imitating a more elongated face and a wider jaw (Dixon, Lee et al., 2017). However, Geniole and McCormick (2015) demonstrated that face masculinization and aggressiveness were related to the face width-to-height ratio irrespective of wearing a beard. Facial hair becomes an intrasexually relevant signal of dominance during late adolescence when competition for status among peers and attracting mates reaches prominence (Nelson et al., 2019). The above-mentioned findings are limited to general ratings of men with facial hair. However, social impressions of men with facial hair in particular contexts are more equivocal. For example, beardedness may be connected with more favorable attributions (e.g. higher rating of competence; Reed & Blunk, 1990) or less favorable attributions in the context of workplace or job application (De Souza et al., 2003; Terry & Krantz, 1993). Beardedness was also associated with

conservatism (Feinman & Gill, 1977), unconventionality and goodness (Hellström & Tekle, 1994).

Women's and men's preferences concerning male facial hair may also vary depending on prevailing economic, cultural and ecological conditions (Oldstone-Moore, 2015). Women's preferences for masculine faces were stronger under conditions where offspring survival is higher and economic conditions are more favorable (Marcinkowska et al., 2019). During some periods, facial hair may serve as a symbol of respectability. In others, it may express a disregard for fashion and conformity (Corson, 1980). Therefore, contrasting preferences toward male facial hair in different cultures and ecological conditions may illustrate whether these preferences are universal or context-dependent. For example, Gray et al. (2020) contrasted preferences and impressions of young adult American and Indian participants. Greater variance in male facial hair preferences was found in the Indian sample and the evaluation of attractiveness of a particular type of facial hair (e.g. moustache) was more favorable in Indian participants. Other cross-cultural studies indicated a potentially moderating role of socio-sexual orientation and the development of a country (Marcinkowska et al., 2019). Higher preference for masculine faces appeared in countries with higher socio-sexual orientation and the development of a country (e.g. The United States, The United Kingdom), which may have also resulted in higher preference for bearded faces in these countries (e.g. Neave & Shields, 2008). Thus, studies in countries with lower human development index and more sexually restrictive norms are needed to examine women's and men's preferences toward beardedness. The present studies were conducted in Poland where previous studies had noted an ambiguous preference for facial masculinization, more sexual restrictiveness compared to e.g. United States or United Kingdom samples, lower sex ratio (Marcinkowska et al., 2019; Schmitt, 2005) and a considerably higher preference for clean-shaven male faces (Dixson, Rantala et al., 2017, supplementary material 1).

Research into perception and signaling functions of facial hair is usually conducted using stimulus faces shown in videos or photographs, in which the length and form of facial hair are manipulated (see e.g. Gray et al., 2020; Neave & Shields, 2008; Nelson et al., 2019). The task of the research participants is to indicate which faces they find the most attractive, the most aggressive, the most dominant and so on. Although the results obtained indicate many inter- and intrasexual functions performed by facial hair, it remains an open question whether they are reflected in personal preferences concerning their own facial hair and those of other men around them, or in the actual wearing of facial hair. This question became an inspiration to conduct the two studies presented below. Their main goal was to examine male preferences related to facial hair in the contexts of female preferences for male facial hair and desired appearance of other men's facial hair.

Study 1 analyzed men's preferences concerning their own facial hair (the desire to have a clean-shaven face or face with facial hair) and other men's facial hair in the context of

Table 1. Male Preferences for Facial Hair in Themselves and in Other Men, and Female Preferences for Male Facial Hair (Study 1).

Preferences for	Preferred own face	Women's preferences	χ^2 (vs. preferred own face)	Preferred other men's face	χ^2 (vs. preferred own face)	χ^2 (vs. women's preferences)
Clean-shaven	65	122	47.86***	138	106.00***	3.16
Facial hair	222	163	Cramer's V = .41	149	Cramer's V = .61	Cramer's V = .11
χ^2 (vs. random distribution)	85.89***	5.90*		.42		
	Cramer's V = .55	Cramer's V = .14		Cramer's V = .04		

* $p < .05$; ** $p < .01$; *** $p < .001$.

women's preferences concerning male facial hair. Since facial hair is perceived in intrasexual competition as an indicator of higher masculinity and higher social status (Dixson & Vasey, 2012), a hypothesis was put forward (H1) stating that men would prefer having facial hair rather than clean-shaven faces for themselves. As facial hair may improve men's success in the marriage market (Barber, 2001), it was assumed that (H2) men would generally prefer facial hair less often in other men and that (H3) men would prefer facial hair in other men less often than in their own case. Moreover, the intersexual signaling role of beardedness is ambiguous (male facial hair is an indicator of both desirable, e.g. better parental skills, and undesirable features, e.g. higher aggressiveness) but the features connected with facial hair (e.g. higher masculinity, dominance, and aggressiveness) are advantageous in intrasexual competition. Therefore, it was predicted that (H4a) men would prefer facial hair for themselves more often than women would prefer male facial hair and that (H4b) men would prefer facial hair for other men less often than women would prefer unshaven faces in men.

An additional issue raised in Study 1 was also whether the male respondents had facial hair or not. It was also predicted that (H5) because of the intrasexual functions of facial hair, the proportion of men preferring facial hair for themselves would be higher than the proportion of men actually wearing facial hair (and consequently a certain share of men not wearing facial hair, e.g. for physiological reasons, would desire to have it). Additionally, it was predicted that (H6) in the case of divergences between one's actual facial appearance and the preferred one, the number of men with clean-shaven faces declaring the preference to have facial hair would be higher than the number of men with hairy faces declaring the preference to be clean-shaven.

All six hypotheses were also verified in Study 2. In Study 1, participants gave dichotomized answers to textual questions about the preference for clean-shaven faces or faces with facial hair. In study 2, participants' preferences were measured using dichotomized textual questions as well as visual depictions of several variants of facial hair density (Neave & Shields, 2008). Both studies were conducted on Polish samples.

Study 1

Participants and Procedure

Two hundred and eighty five women and 287 men aged 18 to 40 participated in the study. The data were collected both using

the paper-and-pencil method and by means of an electronic survey module. Participation in the study was anonymous, voluntary and without payment. Participants were recruited using snowball sampling by posting invitations to participate in social media. The majority of participants were university students and their acquaintances.

The average age for the women was 23.2 ($SD = 4.0$), and for the men it was 24.5 ($SD = 4.8$). The men participating in the survey were slightly older than the women ($t(570) = -3.50$; $p < .001$; Cohen's $d = 0.29$).

Measures

The study participants completed a questionnaire related to male facial hair, containing questions with dichotomized responses. The surveyed women were asked to indicate whether they liked more men's clean-shaven faces or faces with facial hair. The male respondents were asked to indicate (1) whether, if they could choose, they would prefer their faces to be clean-shaven or with facial hair, and (2) whether, if they could choose, they would prefer the faces of other men around them to be clean-shaven or with facial hair. The male participants completing the online version of the questionnaire were also asked whether their faces were clean-shaven or with facial hair in everyday life. In the analysis of the results, χ^2 tests of independence and proportion tests were used.

Results

Preferences for Male Facial Hair Among Women

Among the female respondents, 57.19% indicated a preference for men with facial hair, and 42.81% preferred clean-shaven faces (frequencies of women's preferences are presented in Table 1). This proportion was significantly different from a random distribution and indicated that women would favor male faces with facial hair. There was no age difference between women who preferred male faces clean-shaven or with facial hair ($t(283) = 0.10$; $p = .92$).

Preferences for Male Facial Hair Among Men

In the study sample, 77.35% declared that they would like to have facial hair, while 22.65% indicated that they would prefer to have a clean-shaven face (frequencies of men's preferences

Table 2. Relationships of Male Preferences Related to Men's Faces in Both Studies.

		Preferred own face			
		Study 1 (n = 287)		Study 2 (n = 126)	
		clean-shaven	with facial hair	clean-shaven	with facial hair
Preferred other men's face	clean-shaven	52	86	52	18
	with facial hair	13	136	11	45
		Actual own face			
		Study 1 (n = 94)		Study 2 (n = 126)	
		clean-shaven	with facial hair	clean-shaven	with facial hair
		Preferred other men's face	clean-shaven	24	21
	with facial hair	7	42	9	47
		Actual own face			
		Study 1 (n = 94)		Study 2 (n = 126)	
		clean-shaven	with facial hair	clean-shaven	with facial hair
		Preferred own face	clean-shaven	15	5
	with facial hair	16	58	9	54

Table 3. Male Actual Facial Hair, Male Preferences for Facial Hair in Themselves and in Other Men, and Female Preferences for Male Facial Hair (Study 1).

Preferences for	Preferred own face	Preferred other men's face	Actual own face	χ^2 (vs. preferred own face)	χ^2 (vs. preferred other men's face)
Clean-shaven	20	45	31	5.82*	8.36**
Facial hair	74	49	63	Cramer's V = .25	Cramer's V = .30
χ^2 (vs. random distribution)	31.02*** Cramer's V = .57	.02 Cramer's V = .01	10.89*** Cramer's V = .34		

* $p < .05$; ** $p < .01$; *** $p < .001$.

are presented in Table 1). This proportion differed significantly from the random preferences, which suggests that men displayed a tendency to prefer their own face with facial hair. Preferences related to one's own facial hair were not related to age ($t(285) = -0.18$; $p = .86$).

The male respondents did not display any significant preferences related to the appearance of other men's faces (see Table 1). Preferences related to other men's facial hair were not related to age ($t(285) = .15$; $p = .89$).

The relationship was subsequently examined between the preference for facial hair on one's own face and the preference for facial hair in other men (relationships of men's preferences are presented in Table 1; for more details, see Table 2). Preferences for facial hair on one's face were positively related to preferences for facial hair in other men. The results also showed that men preferred clean-shaven faces in others significantly more often than in themselves. 80% of the men who preferred clean-shaven faces for themselves also preferred

clean-shaven faces in other men, while only 61.26% of the men who preferred faces with facial hair for themselves preferred facial hair in other men. Preference for other men to have facial hair among men who preferred facial hair for themselves was less frequent than preference among men who preferred to be clean-shaven for a clean-shaven face in other men ($p < .01$).

Wearing Facial Hair and the Related Preferences Among Men

In the Internet study sample, 67.02% declared having facial hair and 32.98% had clean-shaven faces (see Table 3 for the results of the Internet sample). The results demonstrated a statistically significant tendency to have facial hair among the studied men. Having facial hair or not was not related to the age of the surveyed male respondents ($t(92) = -1.62$; $p = .11$). Additionally, in the Internet sample no associations were found between age and preferences regarding one's own face

($t(92) = .51$; $p = .61$) and the faces of other men ($t(92) = -.20$; $p = .84$).

Men's preferences related to facial hair were noticeably consistent with their actual appearance, but the number of men who preferred unshaven faces for themselves was significantly higher than the number of respondents with facial hair. This implies that some of the men with clean-shaven faces would also like to have facial hair. Among men with facial hair, only 7.94% declared their desire to have a clean-shaven face, while among with clean-shaven faces, as many as 51.61% indicated that they would prefer to have facial hair. The difference between the proportions presented was statistically significant ($p < .001$ in the two-tailed test) and indicated that men would like to change the appearance of their face by growing facial hair much more often than to shave it off.

Although men with particular facial appearance (clean-shaven or unshaven) preferred a similar facial appearance in other men, among study participants preference for facial hair in other men was significantly less frequent than actually wearing facial hair.

Comparison of Male and Female Preferences for Male Facial Hair

The number of men who preferred to have facial hair was significantly higher than the number of women preferring facial hair in men (Table 1). No differences were found between women's preferences with regard to male facial hair and men's preferences for other men's facial appearance. Additionally, the proportion of men with facial hair did not differ significantly from the proportion of women with a preference for male facial hair.

Study 2

Participants and Procedure

One hundred and forty six heterosexual women and 126 heterosexual men aged 20 to 35 participated in the research. The average age for the women was 28.2 ($SD = 4.2$), and for the men it was 29.0 ($SD = 4.3$). No age differences were noted between the groups distinguished by sex ($t(270) = 1.56$; $p = 0.12$). The data were collected using a Polish Internet survey platform "Ariadna" which includes a representative pool of Polish Internet users. Each respondent received 5 participation points which could be collected and exchanged for prizes offered by the platform. The average age of women in Study 2 was higher than women in Study 1 ($t(429) = 11.88$; $p < .001$; Cohen's $d = 1.22$), and similarly, the average age of men in Study 2 was higher than men in Study 1 ($t(411) = 9.51$; $p < .001$; Cohen's $d = 1.00$).

Measures

The female respondents completed the questionnaire which included questions presented in the descriptions of Study 1 and additionally indicated which of the five graphic examples of

male facial hair types (clean-shaven, light stubble, heavy stubble, light beard and full beard; drawings taken from: Neave & Shields, 2008, Figure 1) was the most preferred by them. Similarly, the questionnaire completed by the male respondents resembled the one used in Study 1. Additionally, each dichotomous question (about one's actual facial hair, about the preferred facial hair for oneself and about the preferred facial hair for other men) was followed by the same question with a graphic depiction of five types of male facial hair (clean shaven, light stubble, heavy stubble, light beard and full beard; Neave & Shields, 2008). Both methods of measurement (dichotomous preferences vs. pictorial preferences) yielded similar preferences: female preferences ($\chi^2(4) = 92.27$; $p < .001$; Cramer's $V = .80$), male actual facial appearance ($\chi^2(4) = 60.93$; $p < .001$; Cramer's $V = .70$), male preferences for facial hair for themselves ($\chi^2(4) = 91.10$; $p < .001$; Cramer's $V = .85$), and male preferences toward other men's facial hair ($\chi^2(4) = 84.40$; $p < .001$; Cramer's $V = .82$).

For dichotomous variables, χ^2 tests of independence and proportion tests were used. The data referring to the graphic forms of facial hair were treated as polytomous and continuous. Therefore, both χ^2 tests and ANOVA tests were used for them.

Results

Preferences for Male Facial Hair Among Women

Among the surveyed women, 54.80% indicated a preference for clean-shaven faces in men, while 45.21% preferred facial hair (see Table 4). This proportion indicated that women would not demonstrate any clear preference for male facial appearance. Women who preferred clean-shaven male faces were older ($M = 28.9$; $SD = 4.2$) than those who preferred unshaven male faces ($M = 27.4$; $SD = 4.1$) ($t(144) = 2.11$; $p = .036$; Cohen's $d = .35$).

Using the visual measurement of women's preferences for male facial hair, a non-random distribution was obtained. The majority of women preferred clean-shaven male faces (43.84%), followed by heavy stubble (26.03%) and light stubble (16.44%). Faces with light beard (10.96%) and full beard (2.74%) were the least preferred. Women preferences toward different male facial hair were not related to age ($F(4, 141) = 1.13$; $p = .35$).

Wearing Facial Hair and the Related Preferences Among Men

Male participants' own faces. In the study sample, 57.14% declared having facial hair and 42.86% had clean-shaven faces (see Table 4). The tendency to actually have facial hair among the study men was non-significant. Having facial hair or not was not related to the age of male respondents ($t(124) = -.65$; $p = .52$).

Visual measurement indicated a significant tendency in the range of actual appearance of male participants' faces (Table 4). The majority of participants reported wearing some type of

Table 4. Male Actual Facial Hair and Male Preferences for Facial Hair in Themselves and in other men, and Female Preferences for Male Facial Hair (Study 2).

Preferences for	Actual own face	Preferred own face	χ^2 (vs. actual own face)	Preferred other men's face	χ^2 (vs. actual own faces)	χ^2 (vs. preferred own face)	Women's preferences	χ^2/t (vs. actual own faces)	χ^2/t (vs. preferred own face)	χ^2/t (vs. other men's face)
Dichotomized preferences										
Clean-shaven Facial hair	54	63	2.57	70	8.23**	1.58	80	7.25**	1.19	.03
χ^2 (vs. random distribution)	2.57	.00	V = .14	1.56	V = .26	V = .11	1.34	V = .16	V = .06	V = .01
	Cramer's V = .14	Cramer's V = 0		Cramer's V = .111			Cramer's V = .10			
Pictorial preferences										
CS	52	51	6.13	61	6.50	10.41*	64	t = .36;	t = 1.03;	t = .08;
LS	41	32	Cramer's V = .11	30	Cramer's V = .11	Cramer's V = .14	24	n.s.	n.s.	n.s.
HS	15	15		17			38			
LB	8	12		10			16			
FB	10	16		8			4			
χ^2 (vs. random distribution)	63.44***	42.65***		75.35***			72.77***			
	Cramer's V = .36	Cramer's V = .29		Cramer's V = .39			Cramer's V = .35			

Note. CS = clean-shaven; LS = light stubble; HS = heavy stubble; LB = light beard; FB = full beard. n.s. = non-significant.

* $p < .05$; ** $p < .01$; *** $p < .001$.

facial hair (58.73% versus 41.27% who reported clean-shaven faces). However, most participants reported light (32.54%) or heavy (11.91%) form of stubble with only 6.35% and 7.94% who reported light beard or full beard.

Male preferences for their own faces. In terms of the preferred appearance of their own face, 50% preferred wearing facial hair, while 50% indicated that they would rather prefer to have a clean-shaven face. With regard to preferences concerning facial hair, no age-related tendencies were revealed ($t(124) = .58$; $p = .56$).

The visual measurement indicated significant differences from a random distribution in the preferred appearance of the face. The majority (40.48%) preferred clean-shaven face for themselves, one-quarter of participants preferred light stubble, nearly 12% preferred heavy stubble while more than 22% preferred light beard or full beard. However, men preferred for themselves any type of facial hair (59.53%) more often than clean-shaven face ($\chi^2(1) = 4.57$; $p = .033$; Cramer's $V = .19$).

Distribution of the actual appearance of participants' faces, which was expressed in a dichotomous form, did not differ from the distribution of their preferred appearance (Tables 2 and 3 for more details). Among men with facial hair, 25% preferred to have a clean-shaven face, while among men with clean-shaven faces 16.67% preferred to have facial hair. The difference between the proportions presented was non-significant ($p = .26$ in the two-tailed test).

The visual measure also indicated a lack of differences between the actual and the preferred appearance of male participants' faces. However, while treating the visual measure as a

continuous variable, the difference between the actual ($M = 2.07$; $SD = 1.23$) and the preferred appearance of one's own face ($M = 2.29$; $SD = 1.41$) was significant ($t(125) = 2.12$; $p = .036$; Cohen's $d = .16$). Participants wanted to have more facial hair than they actually had.

Male preferences for other men's faces. With regard to other men's faces, no clear preference was demonstrated for facial hair or the absence thereof. Over 55 percent of the participants declared preferences for clean-shaven faces in other men, and 44.44% indicated preferences for facial hair.

When using the visual measurement, the distribution of facial appearance preferred in other men was significantly different from a random distribution. The majority of male respondents would like other men to be clean-shaven (48.41%), with lower preference for light stubble (23.81%), heavy stubble (13.49%), light beard (7.94%) and full beard (6.35%). However, if the results were treated in a dichotomized way (clean-shaven vs. any form of facial hair), the difference in proportions would be non-significant ($\chi^2(1) = .13$; $p = .72$; Cramer's $V = .02$).

The dichotomously measured preference for facial hair in other men was significantly less frequent than actually wearing facial hair among the study participants. Moreover, 34.72% of male participants with facial hair preferred other men to be clean-shaven, while only 16.67% of clean-shaven participants preferred other men to wear facial hair ($p = .023$ in the two-tailed test).

Different results were obtained using visual measurement methods. In this case, the actual facial appearance of male

participants did not differ from preferences toward appearance of other men's facial hair. Also, if the continuous measure was used, the actual facial appearance of the participants ($M = 2.07$; $SD = 1.23$) did not differ from the preferred appearance of other men's faces ($M = 2.00$; $SD = 1.23$) ($t(125) = .60$; $p = .55$).

The distribution of preferences regarding the appearance of other men's faces did not differ from the preferences toward their own faces. The proportion of male respondents preferring other men to have clean-shaven faces among those who wanted to have facial hair did not differ from the proportion of individuals who wanted other men to have facial hair among those who preferred clean-shaven face for themselves.

Measured visually, the preferences related to the appearance of other men's faces were different from the preferences of male participants regarding their own faces. Almost all types of facial hair were preferred less in other men, but clean-shaven faces were preferred more. There was also a difference between the preferred facial hair for oneself and for other men ($t(125) = 2.58$; $p = .011$; Cohen's $d = .22$) if five types of facial hair were considered a continuous variable. Participants preferred more facial hair for themselves ($M = 2.29$; $SD = 1.41$) compared to the preferred appearance of other men's faces ($M = 2.00$; $SD = 1.23$).

To sum up, we conducted the ANOVA with repeated measures to compare the participants' actual facial appearance, preferred facial appearance and preferred facial appearance of other men. The analysis indicated significant differences between variables ($F(2, 250) = 3.62$; $p = .028$; partial $\eta^2 = .03$). The post-hoc Scheffe's tests showed a significant difference between the preferred appearance of one's own face and preferences toward other men's facial appearance ($p = .037$).

Comparison of Male and Female Preferences for Male Facial Hair

Measured dichotomously, the proportion of men with facial hair was higher than the proportion of women with a preference for male facial hair. The male participants' preferences for their facial hair did not differ from the proportion of women who preferred facial hair in men. Male preferences regarding other men's facial hair did not differ from women's preferences.

Using the visual measurement, the results showed that women's preferences ($M = 2.12$; $SD = 1.17$) did not differ from men's actual facial appearance ($t(270) = 0.36$; $p = .72$), men's preferences toward their own faces ($t(270) = 1.03$; $p = .31$), or male preferences toward other men's facial hair ($t(270) = .84$; $p = .40$).

General Discussion

Female Preferences Related to Men's Facial Hair

The results obtained in both studies suggest a lack of explicit female preferences associated with male facial hair. In the

case of the dichotomous measurement, no preferences were revealed in Study 2, while in Study 1 the surveyed women preferred faces with facial hair. In the visual measurement used in Study 2, compared to the random distribution of responses, women participants more often indicated as the preferred clean-shaven faces and faces with heavy stubble, and less often faces with light stubble, light beard and full beard. In Study 1, female preferences related to the appearance of the male face were not related to their age. In Study 2, such associations were revealed only in relation to the dichotomous measurement, with clean-shaven faces preferred by slightly older women.

Ambiguous results regarding women's preferences for male facial hair are consistent with previous findings (Dixson & Rantala, 2016; Dixson et al., 2012; Janif et al., 2014; Neave & Shields, 2008). Beardedness may communicate simultaneously maturity, age, higher social status, and parental abilities but also higher aggressiveness and tendencies to dominate (Dixson & Vasey, 2012; Neave & Shields, 2008). Due to these equivocal signals, women may show no clear preferences regarding male facial hair. It is possible that women's preferences associated with male facial hair are distinctly context-dependent (e.g. Dixson, Rantala, & Brooks, 2019; Stower et al., 2019; Valentova et al., 2017). However, these contexts are not emphasized in the present study. Therefore, it could not detect any clear, global preference. It seems that further research on female preferences associated with male facial hair should be conducted in a context-dependent form. Future studies may define preferences for male facial hair in the context of the hiring decision (see Reed & Blunk, 1990), leadership, negotiations, seeking protection, childcare, or even hygiene considerations (e.g. in a restaurant). Moreover, such studies may distinguish between preferences for potential mates vs. family members vs. friends.

The age of women was either unrelated to their preference for male facial hair (Study 1 and continuous part of Study 2) or related negatively (dichotomous part of Study 2). These results are inconsistent with previous studies in which a higher preference was demonstrated for unshaven male faces among older women (Dixson & Vasey, 2012). The findings can be explained by both psychological and cultural factors. First of all, the age of potential partners preferred by women varies considerably (Buunk et al., 2001), which on a general level may result in the lack of a clear tendency to prefer a specific facial appearance suggesting that a man is younger or older. Secondly, associations with male facial hair can be embedded partly in the context of place and time, bringing associations with liked or disliked characters (e.g. politicians; see: de Souza et al., 2003; Feinman & Gill, 1977), which can affect the overall assessment of a particular form of facial hair. Moreover, women in Study 2 were older than in Study 1, and thus the lack of a clear preference for male facial hair may be due to the fact that women who participated in Study 2 may already have had romantic partners and children and may have felt less interested in selecting masculine mates.

Reported Men's Facial Hair Preferences in the Context of Intrasexual Competition Theory

In the context of ambiguous women's preferences for male facial hair, strong sexual dimorphism regarding beardedness (Dixson et al., 2005) highlights functions of male facial hair in male-male intrasexual competition. Facial hair is linked with higher ratings of masculinity and strength (Nelson et al., 2019), higher social status, dominating tendencies and higher aggressiveness (Addison, 1989; Neave & Shields, 2008; Reed & Blunk, 1990). Moreover, some studies suggest that men may use facial hair to compensate for the low levels of other masculinity indicators associated with the jaw shape (Dixson et al., 2016; Dixson et al., 2017; Stower et al., 2019; for other results see Geniole, McCormick, 2015).

Research conducted so far in the field of intrasexual competition has taken into account the associations of having or not facial hair with specific properties. The purpose of both presented studies was to check whether men showed specific preferences related to their facial hair, which could indicate that people are aware of signaling functions of male facial hair. In connection with the above, six hypotheses were formulated.

The hypothesis that men prefer for themselves rather a face with facial hair than a clean-shaven face (H1) found clear support in the results of Study 1. The results of Study 2 were more ambiguous. The dichotomous choice showed no clear preferences for facial hair. Using the visual measurement, it was demonstrated that the largest proportion of the surveyed men showed a preference for a clean-shaven face, but taken together, faces with any facial hair were preferred stronger than a clean-shaven face. These results are in accordance with a signaling role of beardedness in intrasexual competition. Men may prefer having facial hair to deter their enemies and display greater masculinity or a higher social position (Dixson & Vasey, 2012), which subsequently may be perceived as desirable male characteristics in a long-term romantic relationship (Dixson et al., 2019).

The hypothesis that men generally prefer other men's faces clean-shaven (H2) was not supported in the present studies. However, in the visual part of Study 2 men most often indicated clean-shaven faces as the ones preferred in other men. However, if the results were treated in a dichotomized way (clean-shaven vs. any form of facial hair), the difference in proportions would be also statistically non-significant.

The hypothesis that men prefer clean-shaven faces in other men more often than in their own case (H3) received support in the results of Study 1 as well as the visual part of Study 2. The above hypothesis was not supported only by the set of data collected in a dichotomous way in Study 2. These results can be interpreted in light of the findings of Janif et al. (2014) related to negative frequency-dependent preferences for male facial hair. Preference for one's own facial hair and, at the same time, for clean-shaven faces in other men may result in a lower proportion of bearded men in the population which may, in turn, lead to greater attractiveness of beardedness as a rare trait. From a different perspective, the preferred other men's clean-

shaven face could limit their ability to compensate unattractive traits of their faces (e.g. extreme levels of masculinity) by facial hair (Dixson et al., 2016; Dixson, Lee, et al., 2017; Stower et al., 2019). This could give men with facial hair an advantage in competition with other men, especially in contexts in which male facial hair is preferred by women (e.g. in long-term relationships; Stower et al., 2019).

The hypothesis that the men's preference to have facial hair is greater than the female preferences associated with male facial hair (H4a) was supported by the results of Study 1 although in the set of data analyzed in Study 2 no significant tendencies were found. Participants in Study 2 were slightly older, which may result in differences in social perception of beardedness (Terry & Krantz, 1993). While its role in signaling e.g. nonconformity may be more favorable for younger men's image, such a function may be less beneficial e.g. in the contexts of workplace (Terry & Krantz, 1993), and thus appeared less desirable for women in older age. The strength of male-male competitiveness may be also different in these two periods, with higher competition among younger adults (Polo et al., 2018), which implied less tendency to signal masculinity among older participants. The obtained results did not support the hypothesis (H4b) that men would prefer clean-shaven faces for other men more often than women would prefer unshaven faces in men. These results show that male preferences toward other men's facial hair are relative to preferences toward one's own appearance rather than to male's perception of women's preferences.

The hypothesis that the proportion of men preferring facial hair for themselves would be higher than the proportion of men actually wearing facial hair (H5) was confirmed in Study 1, but the data collected in the dichotomous part of Study 2 did not support it. However, the visual part of Study 2 revealed that participants wanted to have more facial hair than their actually had, which may be considered in terms of confirmation of the above-mentioned hypothesis. Higher preferences for having facial hair compared to the actual wearing facial hair may communicate men's aspiration to be perceived as more masculine, dominant and to achieve more respect (Gray et al., 2020).

Hypothesis 6 said that the number of clean-shaven men who would prefer to have facial hair should be greater than the number of men with facial hair who would prefer to be clean-shaven. Study 1 supported the hypothesis which is consistent with the established signaling function of beardedness in intrasexual competition (Dixson & Vasey, 2012). Participants in Study 2 in which this hypothesis was confirmed only in the pictorial assessment of preferences were older. Thus, it is possible that the signaling function of facial hair is more important for younger men who are more likely to use it to achieve a higher social position and benefits associated with it. For older men whose position is already more established (they may have had a romantic partner, children and a more established social and professional position) functions related to facial hair may be less important, hence they do not show any difference between the actual and the preferred facial appearance. From a different perspective, older men are *actually older* compared

to younger men, so they may not need to use facial hair as an additional booster of older appearance.

Conclusions, Limitations and Further Perspectives

Although the obtained results did not provide a clear confirmation of the hypotheses, some of the results indicate that men may show a number of preferences related to their own facial hair and facial hair of other men, which can be interpreted as indicators of social awareness of the signaling functions of male facial hair as a tool of intrasexual competition. However, the research was not free from problematic aspects that should be taken into account when interpreting the results and should be addressed in future studies. Some of them are related to the method of data collection itself, while others are related to the ambiguous nature of the answers given by participants without taking into account the wider situational context.

The dichotomous textual format of preference measurement used in the present studies provides participants with only a general description of the examined feature (namely ‘clean-shaven’ versus ‘with facial hair’). This could lead to an ambiguous understanding of the term “facial hair”. Some participants may visualize it as “light stubble”, while others as “full beard” and so on. Although the results obtained in Study 2 showed a high convergence of dichotomized answers given without a visual hint with the answers given on a 5-point graphic scale, future research on the preferences related to facial hair using graphic stimuli are warranted. Such future studies may use a design which would include showing pictures of male faces with a different form of facial hair in pairs and one of these pictures should be always a “clean-shaven” face. This would help to avoid a situation of comparing assessments of one face (clean-shaven) versus an average or a sum of a number of variants of faces (from light stubble to full beard).

It is also likely that not only female but also male preferences regarding facial hair may be context-dependent. Even if men were aware of signaling functions of facial hair, this does not mean that in every situation they would equally want to exert this kind of impression on other people. For example, having facial hair may be associated with formidability desired in long-term relationships (Dixson et al., 2016) but also with lessened competence (Terry & Krantz, 1993) and nonconformity (de Souza et al., 2003), which are undesirable from the point of view of success in the workplace context. Moreover, the present study verified previous result documenting a lack of clear preferences for masculinized male faces in Poland (Marcinkowska et al., 2019). This may suggest that in ecological and economic circumstances similar to Polish (average development of a country, average socio-sexual orientation, etc.) beards are a less meaningful signal in mate attraction. When compared to the results presented by Neave and Shields (2008), Polish women preferred clean-shaven male faces to heavy and light stubble, and disliked full beards. British women disliked full beards, but similarly disliked clean-shaven male faces and preferred light stubble. However, clear preference for wearing

facial hair demonstrated in the present study among Polish males may indicate that intrasexual competition may be the most important factor affecting men’s preferences for facial hair (Puts et al., 2015).

The present study showed the male’s preference for having facial hair rather than clean-shaven faces which is accompanied by the actual proportion of men having facial hair that was higher than random. Moreover, the research demonstrated a relative male’s preference for more clean-shaven faces among other men compared to the preferences toward one’s own face. Women reported no clear preference for male’s facial hair. The present study adds to the current knowledge by demonstrating a lower preference for facial hair in other men. These results are consistent with the findings on the importance of beardedness in intrasexual competition and negative frequency-dependent preferences in male facial hair (Janif et al., 2014).


Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Lukasz Jach, PhD  <https://orcid.org/0000-0002-8215-0795>

References

- Addison, W. E. (1989). Beardedness as a Factor in Perceived Masculinity. *Perceptual and Motor Skills*, 68, 921–922.
- Alwaleedi, S. A. (2015). The involvement of androgens in human hair growth. *American Journal of Biomedical Sciences*, 7, 105–124.
- Barber, N. (2001). Mustache fashion covaries with a good marriage market for women. *Journal of Nonverbal Behavior*, 25, 261–272.
- Blanchard, D. C. (2009). Of lion manes and human beards: Some unusual effects of the interaction between aggression and sociality. *Frontiers in Behavioral Neuroscience*, 3, 1–7.
- Buunk, B. P., Dijkstra, P., Kenrick, D. T., & Warntjes, A. (2001). Age preferences for mates as related to gender, own age, and involvement level. *Evolution and Human Behavior*, 22(4), 241–250.
- Corson, R. (1980). *Fashion in hair: The first 5000 years*. Peter Owen.
- de Souza, A. A., Baião, V. B., & Otta, E. (2003). Perception of men’s personal qualities and prospect of employment as a function of facial hair. *Psychological Reports*, 92, 201–208.
- Dixson, A., Dixson, B., & Anderson, M. (2005). Sexual selection and the evolution of visually conspicuous sexually dimorphic traits in male monkeys, apes and human beings. *Annual Review of Sex Research*, 16, 1–19.
- Dixson, B. J. W., Blake, K. R., Denson, T. F., Gouda-Vossos, A., Sulikowski, D., Rantala, M. J., & Brooks, R. C. (2018). The role of mating context and fecundability in women’s preferences for men’s facial masculinity and beardedness. *Psychoneuroendocrinology*, 93, 90–102.

- Dixson, B. J. W., Kennedy-Costantini, S., Lee, A. J., & Nelson, N. L. (2019). Mothers are sensitive to men's beards as a potential cue of paternal investment. *Hormones and Behavior*, *113*, 55–66.
- Dixson, B. J. W., Lee, A. J., Sherlock, J. M., & Talamas, S. N. (2017). Beneath the beard: Do facial morphometrics influence the strength of judgments of men's beardedness? *Evolution and Human Behavior*, *38*, 164–174.
- Dixson, B. J. W., Lee, A., Blake, K. R., Jasienska, G., & Marcinkowska, U. M. (2018). Women's preferences for men's beards show no relation to their ovarian cycle phase and sex hormone levels. *Hormones and Behavior*, *97*, 137–144.
- Dixson, B. J. W., Rantala, M. J., & Brooks, R. C. (2019). Cross-cultural variation in women's preferences for men's body hair. *Adaptive Human Behavior and Physiology*, *5*, 131–147.
- Dixson, B. J. W., Rantala, M. J., Melo, E. F., & Brooks, R. C. (2017). Beards and the big city: Displays of masculinity may be amplified under crowded conditions. *Evolution and Human Behavior*, *38*, 259–264.
- Dixson, B. J. W., Sherlock, J. M., Cornwell, W. K., & Kasumovic, M. M. (2017). Contest competition and men's facial hair: Beards may not provide advantages in combat. *Evolution and Human Behavior*, *39*, 147–153.
- Dixson, B. J. W., Sulikowski, D., Gouda-Vossos, A., Rantala, M. J., & Brooks, R. C. (2016). The masculinity paradox: Facial masculinity and beardedness interact to determine women's ratings of men's facial attractiveness. *Journal of Evolutionary Biology*, *29*, 2311–2320.
- Dixson, B. J., & Brooks, R. C. (2013). The role of facial hair in women's perceptions of men's attractiveness, health, masculinity and parenting abilities. *Evolution and Human Behavior*, *34*, 236–241.
- Dixson, B. J., & Rantala, M. (2016). The role of facial and body hair distribution in women's judgments of men's sexual attractiveness. *Archives of Sexual Behavior*, *45*, 877–889.
- Dixson, B. J., Tam, J. C., & Awasthy, M. (2012). Do women's preferences for men's facial hair change with reproductive status? *Behavioral Ecology*, *24*, 708–716.
- Dixson, B. J., & Vasey, P. L. (2012). Beards augment perceptions of men's age, social status, and aggressiveness, but not attractiveness. *Behavioral Ecology*, *23*, 481–490.
- Feinman, S., & Gill, G. W. (1977). Female's responses to male beardness. *Perceptual and Motor Skills*, *58*, 533–534.
- Geniole, S. N., & McCormick, C. M. (2015). Facing our ancestors: judgements of aggression are consistent and related to the facial width-to-height ratio in men irrespective of beards. *Evolution and Human Behavior*, *36*, 279–285.
- Gray, P. B., Craig, L. K., Paiz-Say, J., Lavika, P., Kumar, S. A., & Rangaswamy, M. (2020). Sexual selection, signaling and facial hair: US and India ratings of variable male facial hair. *Adaptive Human Behavior and Physiology*, *6*, 170–184.
- Grueter, C. C., Isler, K., & Dixson, B. J. (2015). Are badges of status adaptive in large complex primate groups? *Evolution and Human Behavior*, *36*, 398–406.
- Hellström, A., & Tekle, J. (1994). Person perception through facial photographs: Effects of glasses, hair, and beard, on judgments of occupation and personal qualities. *European Journal of social Psychology*, *24*, 693–705.
- Janif, Z. J., Brooks, R. C., & Dixson, B. J. (2014). Negative frequency-dependent preferences and variation in male facial hair. *Biological Letters*, *10*, 1–4.
- Kordsmeyer, T. L., Hunt, J., Puts, D. A., Ostner, J., & Penke, L. (2018). The relative importance of intra- and intersexual selection on human male sexually dimorphic traits. *Evolution and Human Behavior*, *39*, 424–436.
- Marcinkowska, U. M., Rantala, M. J., Lee, A. J., Kozlov, M. V., Aavik, T., Cai, H., Contreras-Garduño, J., David, O. A., Kaminski, G., Li, N. P., Onyishi, I. E., Prasai, K., Pazhoohi, F., Prokop, P., Cardozo, S. L. R., Sydney, N., Taniguchi, H., Krams, I., & Dixson, B. J. W. (2019). Women's preferences for men's facial masculinity are strongest under favorable ecological conditions. *Scientific Reports*, *9*, 3387. <https://doi.org/10.1038/s41598-019-39350-8>
- Neave, N., & Shields, K. (2008). The effects of facial hair manipulation on female perceptions of attractiveness, masculinity, and dominance in male faces. *Personality and Individual Differences*, *45*, 373–377.
- Nelson, N. L., Kennedy-Costantini, S., Lee, A. J., & Dixson, B. J. W. (2019). Children's judgements of facial hair are influenced by biological development and experience. *Evolution and Human Behavior*, *113*, 55–66.
- Oldstone-Moore, C. (2015). *Of Beards and Men: The Revealing History of Facial Hair*. The University of Chicago Press.
- Penton-Voak, I. S., & Perrett, D. I. (2000). Female preference for male faces changes cyclically: Further evidence. *Evolution and Human Behavior*, *21*, 39–48.
- Perrett, D. I., Lee, K. J., Penton-Voak, I., Rowland, D., Yoshikawa, S., Burt, D. M., Henzi, S. P., Castles, D. L., & Akamatsu, S. (1998). Effects of sexual dimorphism on facial attractiveness. *Nature*, *394*, 884–887.
- Polo, P., Fernandez, A., Muñoz-Reyes, J. A., Dufey, M., & Buunk, A. P. (2018). Intrasexual competition and height in adolescents and adults. *Evolutionary Psychology*, *16*(1), 1–18.
- Puts, D. A. (2010). Beauty and the beast: Mechanisms of sexual selection in humans. *Evolution and Human Behavior*, *31*, 157–175.
- Randall, V. A. (2008). Androgens and hair growth. *Dermatologic Therapy*, *21*, 314–328.
- Reed, J., & Blunk, E. M. (1990). The influence of facial hair on impression formation. *Social Behavior and Personality: an international journal*, *18*(1), 169–175.
- Schmitt, D. P. (2005). Sociosexuality from Argentina to Zimbabwe: A 48-nation study of sex, culture, and strategies of human mating. *Behavioral and Brain Sciences*, *28*(2), 247–311. <https://doi.org/10.1017/s0140525x05000051>
- Scott, I. M. L., Clark, A. P., Boothroyd, L. G., & Penton-Voak, I. S. (2013). Do men's faces really signal heritable immunocompetence? *Behavioral Ecology*, *24*, 579–589.
- Sherlock, J. M., Tegg, B., Sulikowski, D., & Dixson, B. J. W. (2017). Facial masculinity and beardedness determine men's explicit, but not their implicit, responses to male dominance. *Adaptive Human Behavior and Physiology*, *3*, 14–29.
- Stower, R. E., Lee, A. J., McIntosh, T. L., Sidari, M. J., & Sherlock, J. M. (2019). Mating strategies and the masculinity paradox: How

- relationship context, relationship status, and sociosexuality shape women's preferences for facial masculinity and beardedness. *Archives of Sexual Behavior*. <https://doi.org/10.1007/s10508-019-1437-2>
- Terry, R. L., & Krantz, J. H. (1993). Dimensions of trait attributions associated with eyeglasses, men's facial hair, and women's hair length. *Journal of Applied Social Psychology*, 23, 1757–1769.
- Valentova, J. V., Varella, M., Bártová, K., Štěrbová, Z., & Dixon, B. J. W. (2017). Mate preferences and choices for facial and body hair in heterosexual women and homosexual men: Effects of sex, population, homogamy, and imprinting-like effects. *Evolution and Human Behavior*, 38, 241–248.
- Wogalter, M. S., & Hosie, J. A. (1991). Effects of Cranial and Facial Hair on Perceptions of Age and Person. *The Journal of Social Psychology*, 131, 589–591.